

A CONTEMPORARY RESPONSE TO PLACE IN NORTHERN MEXICO p. 22

# TexasArchitect

JANUARY/FEBRUARY 2004

Trustee Hall  
St. Edward's University

p. 24

**PLUS**

Cy-Fair College Campus

UT-El Paso Student Housing





# THIS BROKER GETS IT.

*Design and construction.* That's what your AE Choice Broker specializes in. You should demand nothing less for your business. By working closely with CNA/Schinnerer, they have complete access to some of the most powerful and flexible programs available – including the leading comprehensive coverage program, DesignOne. Because they have extensive knowledge of the complexities of your industry, this AE Choice Broker is simply one of the best choices in the business. Call today, and discover what they can do to insure your peace of mind.



**BellGroup**

Insurance

16980 Dallas Parkway • Suite 100  
Dallas, TX 75248-1908  
Phone: (972) 581-4857  
(800) 521-2355  
Fax: (972) 980-1813  
[www.ebellgroup.com](http://www.ebellgroup.com)

Victor O.  
**Schinnerer**  
& Company, Inc.

[www.PlanetAEC.com](http://www.PlanetAEC.com)

**CNA**

CNA is a service mark and trade name registered with the U.S. Patent and Trademark Office. The program referenced herein is underwritten by one or more of the CNA companies. This information is for illustrative purposes only and is not a contract. It is intended to provide a general overview of the products and services offered. Only the policy can provide the actual terms, coverages, amounts, conditions and exclusions. All coverages not available in all states. ©2003.



# where classic brick blends modern



The perfect brick blend brings modern appeal to a classic material and colonnade design. Expertise and insight to meet your demanding design goals are yours at your trusted source:

Blackson Brick Co.



Photographer: Roy Don Tilley, Bastrop, Texas



## Blackson Brick Co.

214-855-5051 [www.blacksonbrick.com](http://www.blacksonbrick.com)  
[info@blacksonbrick.com](mailto:info@blacksonbrick.com)

J.W. Long Elementary School, Terrell

GENERAL CONTRACTOR Denson Construction Co., Inc., Tyler  
MASONRY CONTRACTOR C.D. Commercial Masonry, Rowlett



ARCHITECT  
972-233-6100  
[www.claycomb.net](http://www.claycomb.net)



BRICK MANUFACTURER  
402-477-6663  
[www.yankeehillbrick.com](http://www.yankeehillbrick.com)

Circle 6 on the reader service card



Create lasting  
impressions  
in ceramic tile.



Ceramic tile is more  
than just a surface  
covering, it's a design  
element.



Add texture, color, and  
flair to virtually any surface  
with premium tile and  
expert assistance from  
American Tile.



Showrooms in Austin, Dallas,  
Fort Worth, Houston  
& San Antonio.



2839 Merrell Road | Dallas, TX 75229  
972.243.2378 | [www.americantilesupply.com](http://www.americantilesupply.com)

Circle 16 on the reader service card



# TexasArchitect

JANUARY / FEBRUARY 2004



## 22 A CONTEMPORARY RESPONSE TO THE CONDITIONS OF PLACE

El Colegio Cervantes de Torreón, Coahuila

EDWARD R. BURIAN

## 24 BALANCING ACT

Trustee Hall at St. Edward's University, Austin

*Andersson-Wise Architects*

ELIZABETH DANZE, AIA

## 30 EXOTIC VILLAGE

University of Texas at El Paso Student Housing, El Paso

*BOKA Powell*

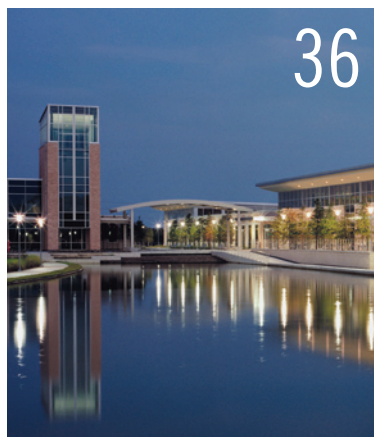
ED SOLTERO, AIA

## 36 PLANNED COMMUNITY FOR PRAIRIE SCHOLARS

Cy-Fair College, Cypress

*Gensler*

MARK LAM, AIA



### DEPARTMENTS

05 EDITOR'S NOTE

09 NEWS/CALENDAR/PAPERWORK

19 LECTURE Murcutt Explains Himself

20 BOOK The Perils of PowerPoint

42 PORTFOLIO TASA/TASB 2003 School Award Winners

52 INSIGHT Acoustics

60 MARKETPLACE

64 BACKPAGE

#### ON THE COVER

Trustee Hall at St. Edward's University, Austin, by Andersson-Wise Architects;  
photo by Timothy Hursley.



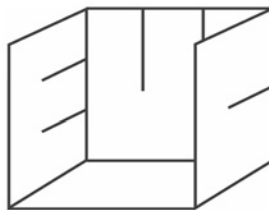


## Quality Custom Installations

ACCUTRACK®/ACCU-SNAP

Since 1981

Acoustic Panels  
Tackable Panels  
Marker Boards  
Magnetic Walls



**Executive Wall Concepts, Inc.**

(713) 688-7008

Circle 201 on the reader service card

# BUILDING COMMISSIONING



Make sure your building is delivered on time and will function properly from day one. Building Commissioning will help your facility reduce risk, improve quality, increase occupant safety and energy efficiency in new or existing buildings.

Through a step-by-step, integrated process, SSR Commissioning Services will review, test, evaluate and document the function and performance of a building's total systems.

LEED™ Certified Commissioning



Smith Seckman Reid Commissioning, LLC  
10205 Westheimer  
Houston, TX 77042  
Tel: 713.830.4230

For more information about SSR Commissioning, please contact JB MALLAY, Tel: 713.830.4230 or JMallay@ssr-inc.com

Circle 54 on the reader service card

## Your South Texas Building Partner for Over 50 Years.

Valley Block & Brick supplies a diverse range of quality masonry products and a bonus that no one can manufacture—our people—local professionals serving you and your project.

- Standard and Architectural CMU
- Face Brick and Masonry Accessories
- Local Expertise and History

**Valley**  
BUILDERS SUPPLY, Inc.  
**BLOCK & BRICK**

Pharr 956-787-3223 11/8-mi. E. on Bus. 83  
San Benito 956-389-5373 Expy. 83 & FM 732  
Laredo 956-725-1818 13511 Regional Dr.

Circle 3 on the reader service card

# TexasArchitect

January/February 2004

Volume 54, Number 1

*Texas Architect* (ISSN: 0040-4179) is published seven times per year (bimonthly and in April) by the Texas Society of Architects (TSA), 816 Congress Ave., Suite 970, Austin, Texas 78701, www.texasarchitect.org. TSA is the official Texas state organization of the American Institute of Architects (AIA). Copyright 2004 by the Texas Society of Architects.

**Stephen Sharpe**

EDITOR

ssharp@texasarchitect.org

**Adam Fortner**

ART DIRECTOR

adam@texasarchitect.org

### CONTRIBUTING EDITORS

Lawrence Connolly, AIA, Austin; Stephen Fox, Houston; Nestor Infanzón, AIA, Dallas; Max Levy, AIA, Dallas; Gerald Moorhead, FAIA, Houston; Ed Soltero, AIA, El Paso; Frank Welch, FAIA, Dallas; Willis Winters, Dallas; David Woodcock, FAIA, RIBA, College Station

**Judey Dozeto**

ASSOCIATE PUBLISHER

judey@texasarchitect.org

**Carolyn Baker**

ADVERTISING REPRESENTATIVE

512/249-7012

**Jennifer McCutchen**

Sandra Taylor

INTERNS

**David Lancaster, Hon. AIA**

EXECUTIVE VICE PRESIDENT

### TSA PUBLICATIONS COMMITTEE

Thomas Hayne Upchurch, AIA, Brenham (chair); J. Tom Ashley, III, FAIA, McAllen; Elizabeth Danze, AIA, Austin; Duncan Fulton, FAIA, Dallas; Val Glitsch, FAIA, Houston; Julius Gribou, AIA, San Antonio; Justin Howard, Assoc. AIA, Beaumont; Michael Imber, AIA, San Antonio; Ed McCormick, AIA, El Paso; Melinda Koester Poss, AIA, Dallas; Bill Reeves, AIA, San Antonio; David Richter, FAIA, Corpus Christi; W. Dean Rowell, Assoc. AIA, Longview; Andrew Vernoo, AIA, Lubbock; Mark Wellen, AIA, Midland

### TSA OFFICERS

Jeff Potter, AIA, Longview, President; Dick Bundy, AIA, Wichita Falls, President-Elect; Debra Dockery, AIA, San Antonio, Vice President; Chris Hudson, AIA, Houston, Vice President; Ed McCormick, AIA, El Paso, Vice President; Mike Wells, AIA, Dallas, Vice President; James Nader, AIA, Fort Worth, Secretary; Elizabeth Chu Richter, AIA, Corpus Christi, Treasurer; Tommy Cowan, AIA, Austinn, AIA Senior Director

### TSA BOARD OF DIRECTORS BY CHAPTER

William Gollihar, AIA, Abilene Chapter; Charles Lynch, AIA, Amarillo Chapter; Jaime Beaman, Jr., AIA, Austin Chapter; Larry Priesmeyer, AIA, Brazos Chapter; William Holland, AIA, Corpus Christi Chapter; Robert Meckfessel, AIA, Dallas Chapter; Barry Lemons, AIA, Fort Worth Chapter; Kurt Hull, AIA, Houston Chapter; Rolando Garcia, AIA, Lower Rio Grande Valley Chapter; Mike Landress, AIA, Lubbock Chapter; Michael Butler, AIA, Northeast Texas Chapter; Diana Bravo Gonzalez, AIA, San Antonio Chapter; Greg Wall, AIA, Southeast Texas Chapter; Donald Rose, AIA, Waco Chapter; Daniel Stephen Hart, AIA, West Texas Chapter; David Hartwell, AIA, Wichita Falls Chapter; Bryce Weigand, FAIA, Dallas, AIA Regional Director; Joseph Mashburn, AIA, Houston, Educator Member; Elaine Petrus, Hon. TSA, Public Member; Monique Lee, Assoc. AIA, Regional Associate Director; Yvonne Bryant, Assoc. AIA, Intern/Associate Member Director

Periodicals Postage Paid at Austin, TX, and additional mailing offices. POSTMASTER: Send address changes to *Texas Architect*, 816 Congress Ave., Suite 970, Austin, Texas 78701-2443. Phone: (512) 478-7386. Printed in the U.S.A.

Subscription price is \$20 per year for TSA members, \$25 for nonmembers with addresses in the continental U.S. Reproduction of editorial content without written permission is prohibited. Use of names and images of products and services in either editorial or advertising does not constitute an endorsement by TSA or AIA, nor does comment necessarily reflect an official opinion of either organization. *TA* is indexed by the Avery Index of Architectural Periodicals, available in major libraries.



# School Work Tests Professionals' Mettle

Design architects and program managers share responsibility, but who's accountable?

WITH well over \$3 billion currently in the pipeline for design and construction of public schools in Texas, many architects around the state are counting their blessings. The profession is experiencing a welcome upswing with jobs opening for design architects and program administrators. Their duties may differ, but all share the same goal of delivering to the client well-designed, energy-efficient schools built within budget.



**Reilly Annex Elementary, designed by Brown Reynolds Watford Architects of Dallas, is among the first of DISD's construction projects.**

Topping the list of bond programs is Dallas' \$1.37 billion school improvements package approved by voters in 2002. To oversee the 65 architectural firms selected for all the projects, DISD hired three primary program administrators (the job title is interchangeable with program manager).

Also in 2002, voters gave Houston ISD the greenlight to spend \$808.6 million on improvements. That bond package actually was the second phase of a three-phase enterprise. Combined with the \$678 million endorsed by voters in 1998, HISD has earmarked a total of \$1.48 billion and is only two-thirds done. According to the district, effective management of the earlier program allowed the work to be accomplished on schedule and millions of dollars under budget. HISD — the largest school district in Texas and the seventh largest in the U.S. — has hired five program administrators to manage 59 architecture firms to undertake the second phase of capital improvements.

After its successful 1998 referendum, HISD hired program administrators, among them a joint venture between Jacobs and 3D/International. One of J3's program administrators was Charles Dunham, AIA, whose assignment was typical for the venture: he and his colleagues managed five projects through design and construction. With each school designed by a different architect, they organized schedules and oversaw budgets, as well as facilitated all meetings between the design team and HISD. "My purpose is to ask the questions that aren't being asked," he says, then adds, "The project administrator is not there to do the architect's job for him. We're facilitators, but we cannot take on the responsibilities of the architect."

And that's where things get dicey because it's the architect, not the program manager, who must answer for any subsequent errors. Yet it's the program managers who, in their capacity as owner's representative, essentially call the shots with respect to time, money, and most important, quality; which can make for a difficult relationship due to the fact that the architect's seal is affixed to the construction documents. The perception among some design architects in regards to this working arrangement is that the program manager wields a disproportionate amount of authority while bearing less than an equal amount of responsibility. (To be fair, the program manager's recommendations sometimes help the design architect avoid future claims and/or rework.) Of course, TBAE rules delegate both the authority to create documents and the responsibility for them to licensed architects, while being silent on the role of program managers who nonetheless often issue directives in many forms and have a direct hand in what is and isn't built.

Some architects, whether employed as a designer or a program manager, occasionally may blame their counterparts for mishandling aspects of a project, no professional dare point a finger at the owner. But that doesn't mean the owner isn't

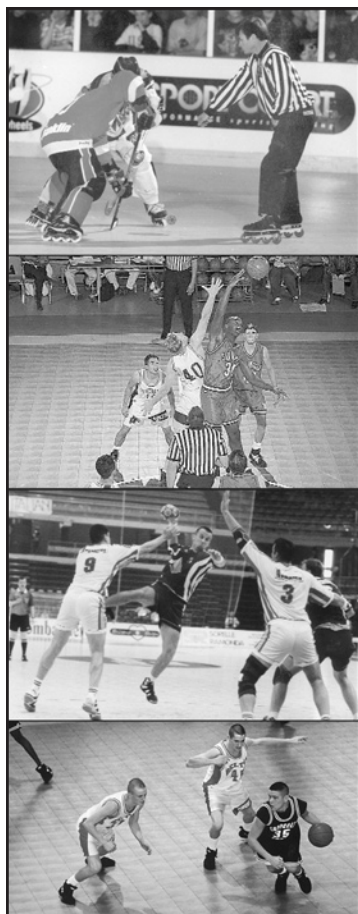
sometimes responsible for mistakes, even to the degree that the cumulative effect wreaks havoc on a large improvements program. Such was the case with Austin ISD and its 1996 construction program funded by \$369 million in bonds approved by voters to build 11 new schools. AISD's program sustained a double whammy due to severely low cost estimates for technology improvements prepared by its staff and the adverse consequences of the late-1990s high-tech bubble when costs for real estate and materials unexpectedly soared just as construction was to begin. The result was a program sold to the voters at \$369 million but ballooned to about \$450 million, and in which construction was expected to be complete in 2002 but dragged on until last October.

Initially, the public's ire for the cost overruns was directed at BLGY/Sverdrup, an ad hoc team assembled specifically for the AISD program. However, an independent audit in 2000 chided AISD for changing educational specifications and space program requirements after the bond referendum. But prior to the audit, the unexpected shortfall created problems that had to be solved. Benny Hawkins, AIA, chairman of BLGY, says the responsibility fell to BLGY/Sverdrup personnel to inform the architects that "bang for the buck was the order of the day" and that project budgets definitely would have to be stretched. The reaction among the architects, as Hawkins states diplomatically, was not uniform: "We had some architects that put their shoulder to the wheel and some architects that were less enthusiastic about it." But like it or not, the work had to be accomplished. And it was, albeit two years late and about 20 percent more costly than originally anticipated.

So, in the end, who is accountable when plans go awry? Rarely is it the owner, although that's where the AISD auditor laid most of the blame. As for the program managers, they may or may not take some heat, but their names won't be inked on the documents. While all parties in school improvement programs share responsibility for providing safe environments for children across Texas, it's the architect whose indelible imprint remains after the buildings are completed and the school day begins.

STEPHEN SHARPE





## Simply the safest multi-purpose surface

Now Available -  
**SPORTSHIELD™ MAPLE!**

**DIN  
CERTIFIED**

**SPORTSHIELD™ -- Innovative technology!**  
*Coating makes flooring armor-plated and scuff-resistant.*

After 25 years of research and development, **SPORT COURT®** provides you with proven performance, cost savings, and safety.

- **DIN CERTIFIED** with 59% shock absorption
- **SUSPENDED FLOOR DESIGN** reduces injuries to ankles, knees, lower back, and shins
- **PATENTED "LATERAL FORGIVENESS™"** reduces lateral trauma on stops, starts, and turns
- **10 YEAR LIMITED WARRANTY.** First 5 years Unconditional
- **COLORFUL & PRAGMATIC.** Custom colors to create and design your own floor
- **WATERPROOF** • **QUICK INSTALLATION TIME**
- **MULTIPLE REPEAT OWNERS** from elementary to colleges and universities



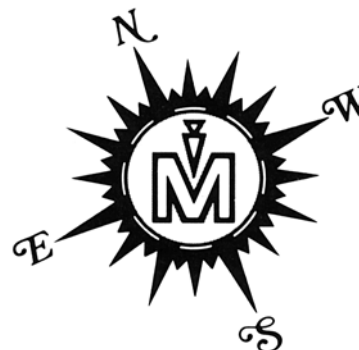
[www.sportcourtflooring.com](http://www.sportcourtflooring.com) **1-800-880-0234**

Endorsed by: NBA, NCAA, FIBA, USA Volleyball, Roller Hockey International

Circle 24 on the reader service card

**NOW TWO CONVENIENTLY  
LOCATED STORES . . .**

**MILLER**  
**BLUEPRINT COMPANY NORTH**  
10713 METRIC BLVD  
Austin, Texas  
(512) 837-8888



**MILLER**  
**BLUEPRINT CO. DOWNTOWN**  
501 WEST 6TH ST.  
Austin, Texas  
(512) 478-8793

**... TO SERVE BETTER THE  
AUSTIN PROFESSIONAL!**

Circle 13 on the reader service card

## Finally, a cost effective green product.

Rapidly Renewable Resource ▲ High LEED rating



### ENVIRONMENTAL BUILDING DESIGNS

**PrestoWall™ interior wall panels**  
**InStar™ acoustical roof & ceiling system**  
**TerraStar™ movable wall system**  
**Low cost housing systems**

*Affordable Building Systems manufactures durable building materials made from solid compressed natural renewable materials that are free of chemicals and produce no toxic waste. Call ABS today for detailed information.*



2750 State Highway 160 • Whitewright, TX 75491 Toll Free (866) 364-1198 Fax (903) 364-1108

[www.affordablebuildingsystems.com](http://www.affordablebuildingsystems.com)

Circle 59 on the reader service card



### Acoustic Consulting Services

Architectural / Mechanical / Performing  
Arts / Speech Privacy / Vibration  
Isolation / Site Noise Surveys / Base  
Building Acoustics / Industrial &  
Community Noise Control / Open  
Office Acoustics

NEW YORK

HONG KONG

WASHINGTON D.C.

CHICAGO

SAN FRANCISCO

PRINCETON

HOUSTON

DENVER

LONDON

LAS VEGAS

DUBAI

Integrated  
Communications  
Technology,  
Security and  
Acoustic Consulting

Houston Office  
(713) 278-8228

[www.smwinc.com](http://www.smwinc.com)

Circle 79 on the reader service card



In the last edition, the feature on IBM/Tivoli's new headquarters in Austin ("Sustainability, Inc." on page 32) contained two mistakes. *TA* misidentified an IBM staff person who worked on the project as Craig Ashburn. His name is Craig Anderson. Also, the article erroneously stated that the project's interior designer was Gensler's Houston office when Gensler's Dallas office actually performed the work.

Also in the last edition, there were two mistakes in the feature on the Historic American Building Survey ("HABS in Texas" on page 24). Texas Tech professor John White should not have been identified as a Fellow of the AIA. Instead, he is a HABS Fellow. The caption was wrong for a photo showing students from the University of Houston on a preservation project in Mexico. The building shown was the Catedral de la Asunción de María in Cuernavaca, Morelos, not the Catedral Nacional in Mexico City.

Because of the poor quality of reproduction of photography on page 46 of the July/August 2003 edition, *TA* is reprinting one of the images here. The photography, by John Davis, of the Daimler Chrysler Financial Services building in Westlake ran in the Portfolio section.



## HOW TO REACH US

### Letters to the Editor

Address letters to:

Stephen Sharpe

Editor

*Texas Architect*

816 Congress Avenue, Suite 970

Austin, Texas 78701

E-mail: [ssharpe@texasarchitect.org](mailto:ssharpe@texasarchitect.org)

### Subscriptions and Back Issues

E-mail: [circulation@texasarchitect.org](mailto:circulation@texasarchitect.org),

or call 512-478-7386

### Reprints and Permissions

For custom reprints (minimum order 500), contact:

Judey Dozeto

Associate Publisher

*Texas Architect*

E-mail: [judey@texasarchitect.org](mailto:judey@texasarchitect.org)



## Proven in the school of hard knocks.

If you want to *really* test a product, send it to school. TECTUM acoustical panels have been there for decades, and they're proving every day that they not only absorb noise, they stand up to punishment. In fact, they're the only ones that give you a lifetime warranty against breakage, saving headaches and money. What's more, TECTUM wall and ceiling systems are attractive, quick and easy to install, and they're environmentally friendly, made only from domestic renewable materials. For schools or anyplace where you need an exceptionally tough, good-looking acoustical panel system, no other makes the grade like TECTUM.

To learn more about TECTUM, visit our Web site at [www.tectum.com](http://www.tectum.com), or call us at 1-888-977-9691.

1-888-977-9691

**TECTUM**

[www.tectum.com](http://www.tectum.com)

Circle 111 on the reader service card





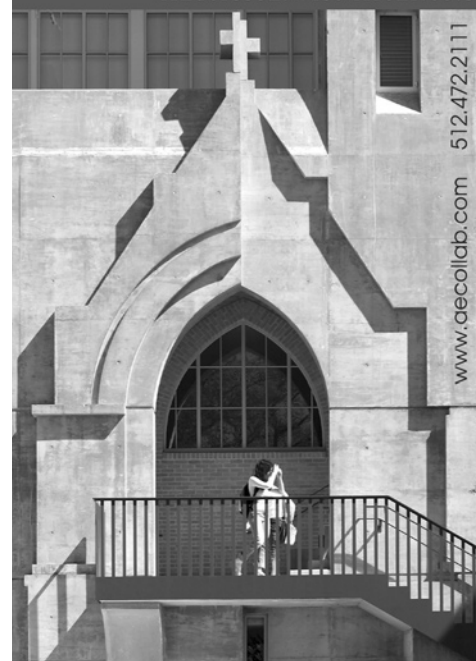
is pleased  
to have sponsored the  
**2003 TSA  
Design Awards**

Congratulations to all the award winners!

Joe and Jeff Denson  
P.O. Box 130336  
Tyler, TX 75713  
(903) 566-1426

Circle 78 on the reader service card

St. Edward's University  
Trustee Hall  
Andersson.Wise Architects



www.aecollab.com 512.472.2111

ARCHITECTURAL  
ENGINEERS  
COLLABORATIVE



Circle 56 on the reader service card

*Innovative.  
Impressive.  
Imaginative.*

[Take a closer look.]

Olson Sundberg Kundig Allen Architects Photo: Michael Jensen

*It's all in the details.* Wood windows and doors  
harmonizing your design with our handcrafted details.  
Call or e-mail for information on our full line of built-to-spec,  
all wood windows and doors.



1-800-287-6650  
qsales@quantumwindows.com

Circle 119 on the reader service card



## Lake/Flato Named AIA Firm of the Year

**SAN ANTONIO** They met while working as apprentices for O'Neil Ford, drawing houses and learning from the master himself about how buildings should respond to climate and how to involve clients so they are just as excited about the project as the architect. That was just prior to Ford's death, and just before 1984 when David Lake and Ted Flato got "kind of a crazy notion" to venture out on their own as Lake/Flato Architects. Twenty years later, their crazy notion has led to a firm that is respected and honored, most recently with the 2004 AIA Architecture Firm Award.

Lake/Flato Architects is only the second Texas firm — the first was Caudill Rowlett Scott, in

**Lake/Flato's most recent projects include the SBC Center, shown at top, in San Antonio (in association with Ellerbe Becket and Kell Muñoz Architects) and the Trammell Crow Visitor Education Pavilion at the Dallas Arboretum (in association with Oglesby-Greene).**

1972 — to receive the AIA's highest honor, given annually to recognize a practice that has consistently produced distinguished architecture for at least 10 years. The award will be presented March 3 at the American Architectural Foundation Accent on Architecture Gala at the National Building Museum in Washington, D.C.

The first to be licensed, Lake also was the first to leave "Ford Powell and Carson University," as he calls it, to take on a couple of remodel jobs. Meanwhile, Flato bided his time at FPC until he was closer to licensure. Then, after Flato and Lake teamed, their former employer gave them a boost. "Ford Powell and Carson was nice enough to allow us to work on a couple of projects that we had originally worked on there, and that helped us immensely," Flato says. Ford's old firm's generosity allowed Lake/Flato to share

credit with FPC for two projects that received TSA Design Awards in 1986: a ranch house in Hebbronville for Molly and Garland Lasater, and a residence in Austin for Flato's sister, Malou Flato, and John Taliaferro. Those were the first awards for the new firm. "We could not imagine ever, ever, ever accomplishing anything beyond that," Flato says. "We were on cloud nine.

We just thought, 'Good Lord, how could you do anything more than that?'"

Both Lake and Flato are native Texans, Lake was born in Austin in 1951 and Flato was born in Corpus Christi in 1955. Lake's father was Texas Secretary of State which led to the 11-year-old David Lake working as a page at the State Capitol, weaving through the grand hallways and delivering messages in the great stately rooms. "That building had an enormous impact on me," he now recalls. Flato's father was a developer in Corpus Christi whose enthusiasm for the region's potential was infectious. While in high school, Ted Flato worked for Richard Colley, one of Ford's former business partners, during the summers.

Lake graduated in 1976 from the University of Texas at Austin's School of Architecture. That was during the Pliny Fisk era, and self-sufficient environmentalism was the ultimate objective. Flato attended Stanford and received his degree in 1977. Bill Turnbull was one of his key professors. "I got that early taste that landscape and architecture were both very interesting things to look into," Flato says. They both eventually ended up in San Antonio and under the sway of the elder statesman of Texas regionalists.

What do they see for the next 20 years? "Well, we have high, high hopes," Flato says. "That's the beauty of our profession is you get better every year and you have more fun every year. We're hoping that this award will allow us to have more fun and do bigger and better things."

STEPHEN SHARPE



PHOTO BY PAUL HESTER



PHOTO BY TIMOTHY HURSELEY



## Architects Rally to Develop a Vision for an Improved Corpus Christi Bayfront

**CORPUS CHRISTI** Despite the local architectural community's unprecedented collaboration on a master plan for the downtown bayfront, City of Corpus Christi officials unexpectedly announced they they had contracted with planners to develop a design that will become the city's new "front door."

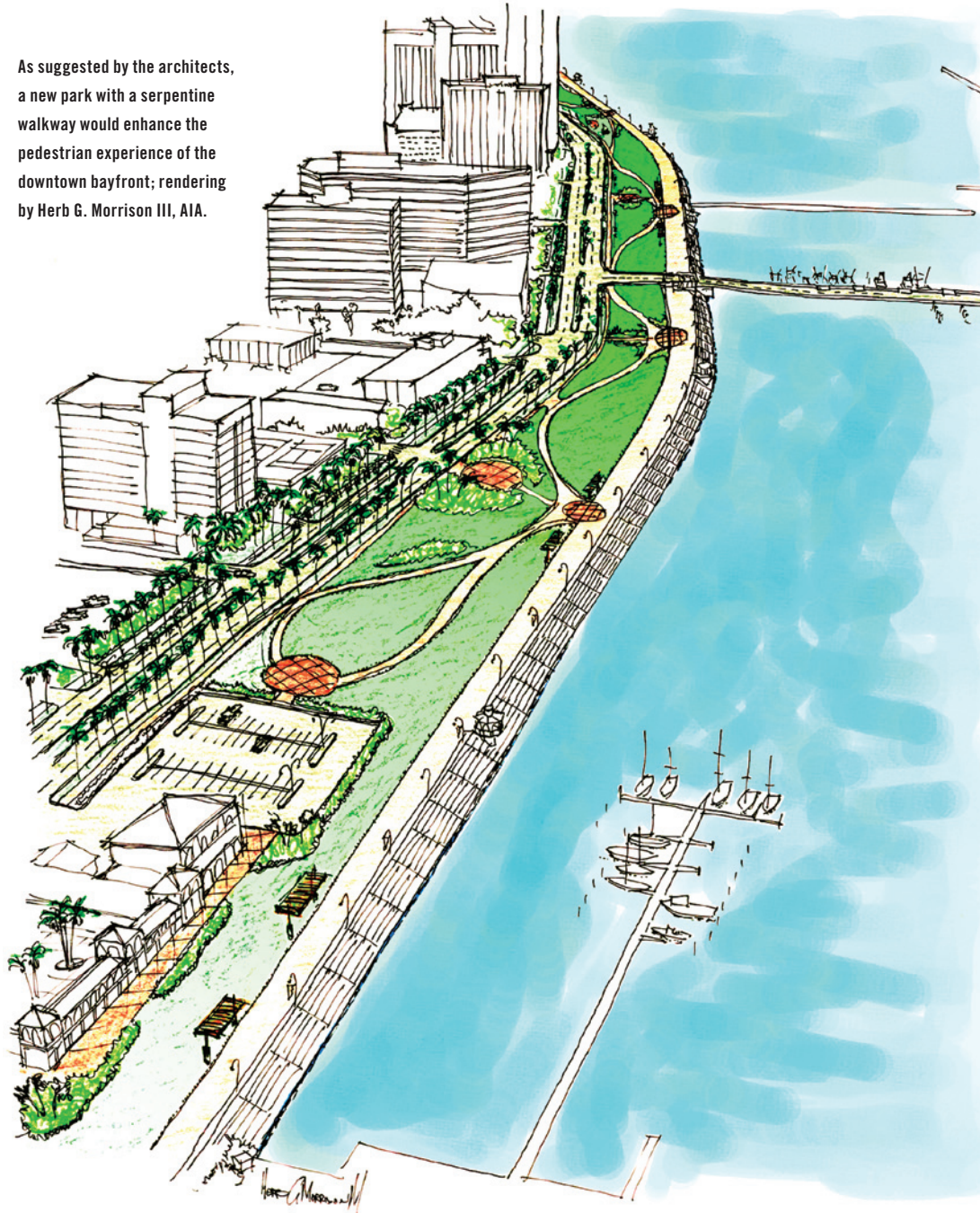
Conceptualizing an improved bayfront, which has remained essentially unchanged since its creation in the 1940s, comes about as that area of downtown undergoes a transformation. The Art Center of Corpus Christi has completed a renovation, a multipurpose arena is under construction, a baseball stadium is underway, and what to do about Memorial Coliseum — always a topic of impassioned discussion — is once again on the table. Yet, while piecemeal improvements and additions have been made over the years, no comprehensive vision has taken hold despite at least 37 different plans and studies that city officials have considered over the last 50 years.

The latest debate began in September when Mayor Loyd Neal made a passing comment during a city council meeting that the time was right for the council to consider creating a greenbelt on the bayfront by closing some lanes of Shoreline Boulevard.

Although the community held a variety of opinions, the lack of a current plan meant there was no real starting point for a meaningful discussion. The Corpus Christi *Caller-Times*, seizing the opportunity to spark public discussion and generate fresh ideas, invited the local architectural community to help develop a new plan. Johnny Cotten, AIA, president of AIA Corpus Christi, and Elizabeth Chu Richter, AIA, the chapter's immediate past president, agreed to engage chapter members in a one-day charrette. Meanwhile, the *Caller-Times* established the parameters of its involvement—how the newspaper would approach the reportage of a public policy that it sponsored, as well as the extent it would play an advocacy role within the community. While pledging to remain objective, the newspaper provided the needed materials and helped organize the charrette.

Twenty-one AIA chapter members met on Oct. 22 in a donated space in the One Shoreline Plaza tower overlooking the bayfront. Also present were Trey McCampbell, a local banker who served as the charrette facilitator, and a *Caller-Times* reporter. The group studied archived

As suggested by the architects, a new park with a serpentine walkway would enhance the pedestrian experience of the downtown bayfront; rendering by Herb G. Morrison III, AIA.



newspaper clippings and other material assembled by the *Caller-Times* staff, including photographs, reports, op-ed columns, and letters to the editor. In addition, Brooke Sween-McGloin, AIA, and Patrick McGloin, AIA, brought plans dating back to 1910. Over the course of 13 hours, the architects drew on their combined 592 years of Corpus Christi residency and knowledge of community concerns to develop solutions that would realize the potential of the two-mile stretch of downtown bayfront.

Richter, who is also a member of the city's planning commission, says the architects

focused on identifying important principles and establishing broad goals to guide development of a future master plan. Keeping in mind that the citizens are the "client," she said, the group set seven major guidelines: the design should improve the pedestrian experience; be geared primarily toward civic and public use; incorporate appropriate commercial activity; use Memorial Coliseum, the beach, and the water to their full potential; maintain views of the bay; create a festival park; and make better

"Bayfront" continued on page 14





## NEED CEPH CREDITS?

Texas-registered architects with an even registration # must earn 8 HSW CEPH credits (including one on barrier-free design) before February 28, 2004. Here are three structured home study options to do just that:

### • OPTION A: \$175

#### MODERN ARCHITECTURE

#### + BARRIER-FREE ACCESS DESIGN

6 HSW CEPHs + 2 barrier-free design credits  
AIA-registered course # AR4355 & AR4337

### • OPTION B: \$125

#### BUILDING & BARRIER-FREE CODES

8 HSW CEPH incl. 1 barrier-free design credit  
AIA-registered course #AR1827

### • OPTION C: \$125

#### GARDEN DESIGN FOR ARCHITECTS

8 HSW CEPH incl. 1 barrier-free design credit  
AIA-registered course #AR4141

Call 1 800 264 9605 now to register  
or go to [www.designarts.net](http://www.designarts.net)

Circle 49 on the reader service card

## Enhancing Sound Quality in Music & Performance Facilities Since 1990

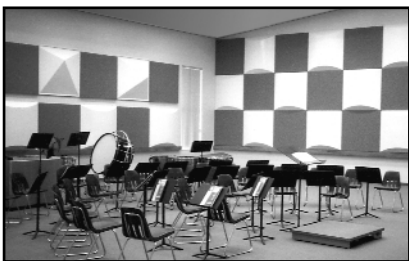


P.O. Box 200504

Austin, Texas 78720-0504

Tel: 512-259-5858 or 877-522-6507

Fax: 512-259-5850 or 877-508-8583



### Sound Absorption & Control Panels

•  
**Barrel, Pyramidal & Quadratic  
Sound Diffusers**

•  
**Auditorium Sound Reflector**

[www.acousticalresources.com](http://www.acousticalresources.com)

• • • • •  
[info@acousticalresources.com](mailto:info@acousticalresources.com)

Circle 57 on the reader service card

## St. Edward's University Trustee Hall *Andersson.Wise Architects*



Circle 175 on the reader service card

## INTRODUCING

**PAC-CLAD**  
Petersen Aluminum

**Cool  
Colors**

*Saving energy.*

*Preserving  
color choice.*

**P**etersen Aluminum Corporation is pleased to introduce PAC-CLAD Cool Colors: a new and updated color palette designed to improve the energy saving performance of our metal roofing products without requiring compromise in color selection. The PAC-CLAD Cool Color palette includes 27 colors on steel and aluminum.

In creating this new product line, we worked with our coating supplier, The Valspar Corporation, to significantly broaden the range of PAC-CLAD Colors that would meet Energystar®, LEED™ and/or cool roof certification requirements for solar reflectance and emissivity ratings.

To receive a copy of our new color chart, please contact us at 1-800-323-1960; or visit our website at [www.pac-clad.com](http://www.pac-clad.com).

**Petersen Aluminum**

1005 Tonne Road • Elk Grove Village, IL 60007

1-800-PAC-CLAD or 1-847-228-7150

Fax: 1-800-722-7150 or 1-847-956-7968

Other Plant Locations:

Annapolis Junction, MD: 1-800-344-1400

Tyler, TX: 1-800-441-8661

Kennesaw, GA: 1-800-272-4482

<http://www.pac-clad.com>

Circle 83 on the reader service card





PHOTOS COURTESY AIA FORT WORTH

**North Texas Health Science Ctr Garage and Quadrangle**



**Casa Mañana Theatre Renovation and Expansion**



**Dr. Pepper/7-Up Ballpark**

## Seven Projects Take F.W. Design Awards

**F O R T W O R T H** Seven projects received awards in AIA Fort Worth's 2003 Design Awards competition, which for the first time included the Collaborative Projects category for local firms that worked as the architect or record.

The event was held Oct. 15 in conjunction with Fort Worth's Architecture Month and coincided with a lecture series held at the Modern Art Museum of Fort Worth. Invited to speak as part of the series, one juror — Berkeley architect Laura Hartman of Fernau & Hartman — presented an outstanding talk about her work and its relationship to the environment. The other two jurors were Juan Miró, AIA, of Miró Rivera Architects in Austin and incoming UTA School of Architecture Dean Donald Gatzke.

The jury, selected with diversity in mind, viewed projects divided among three categories: 34 in General Design, one in the Unbuilt group, and two entered as Collaborative Projects. This is the first year AIA Fort Worth accepted collaborative projects, which allows member firms who provide "architect of record" services to submit entries based on their contribution to the built project. This year's entries included a varied collection of project types. The most populated category, with 10 entries, was schools, many of which included a natatorium and a football stadium. The second highest number, with seven entries, was single family houses,



**Holub Residence**

followed closely by corporate projects with five, and churches with four entries. Surprisingly for Fort Worth, two museums and two theatres also were submitted.

There was no real dissent among the jurors, and three of the ultimate winners were agreed upon quickly. The better part of the afternoon session was taken up sorting through the rest of the field. Plans were dissected, concepts and master plans were analyzed, and the merits of award-winning architecture were discussed. By the end of the day, the jury settled on six winners in General Design and one in the Collaborative Projects group.

In the General Design category, Merit Awards were given to the University of North Texas Health Science Center Garage and Quadrangle by Gideon Toal; Dr. Pepper/7-Up Ballpark by David M. Schwarz/Architectural Services, Inc.; Casa Mañana Theatre Renovation and Expansion by Gideon Toal; and the Holub Residence by Norman D. Ward Architect. Citations were awarded to the Nancy Lee and Perry R.



**Nancy Lee and Perry R. Bass Performance Hall**



**Denton Independent School District Natatorium**



**Amon Carter Museum Expansion**

Bass Performance Hall by David M. Schwarz/Architectural Services, Inc. and the Denton Independent School District Natatorium at C.H. Collins Athletic Complex by VLK Architects.

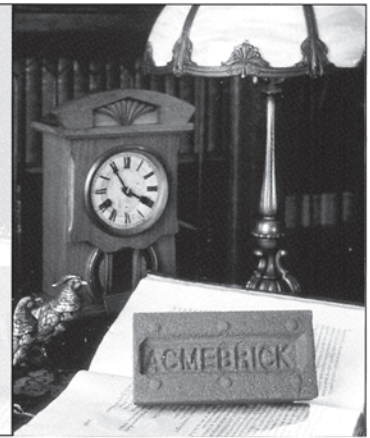
In the Collaborative Project category, a Merit Award was given to the Amon Carter Museum Expansion with Carter & Burgess as the architect of record and Philip Johnson/Alan Ritchie Architects, Inc. as the design architect.

LES EDMONDS, AIA



## "Acme Handmades" Open a New Chapter in Brickmaking

Acme's new Elgin, Texas plant which is producing "Acme Handmades" is the first molded brick plant west of the Mississippi. The soft textures, and random folds and edges of this distinctive product will provide an individual look to any project. For more information contact Acme Brick Company at 1-800-792-1234 or at [www.acmebrick.com](http://www.acmebrick.com).



Circle 16 on the reader service card

## Engineering for Texas Architects Since 1931

Pushing the envelope of what's possible is what **Walter P. Moore** has always been about. Our clients expect nothing less. They come to us for **intelligent solutions** to complex engineering issues.

**Civil Engineering**  
**Parking Consulting**  
**Research & Development**  
**Structural Diagnostics**  
**Structural Engineering**  
**Traffic Engineering**  
**Transportation Engineering**

**WALTER P. MOORE**  
ENGINEERS + CONSULTANTS

1.800.364.7300  
[www.walterpmoore.com](http://www.walterpmoore.com)



Circle 50 on the reader service card



"Bayfront" continued from page 10

use of green spaces. By the end of the charrette, the architects reached consensus on a single plan.

The *Caller-Times* published its news coverage of the charrette on the front page of its October 24 edition as part of a special four-page pullout section documenting the effort and displaying the final plan. The coverage — the third part of "Changing Bayfront," a five-part in-depth series — included brief profiles of participants, an explanation of the charrette process, and a detailed description of the plan and its guidelines.

Judging from local talk radio and the newspaper's online message board, the public overwhelmingly supported the charrette and the architects' pro bono work. "The fact that so many professionals in their role as citizens and experts came together for the community good has had a very positive effect," says Nick Jimenez, editorial page editor of the *Caller-Times*. Richter agrees: "The charrette really brought awareness to the public of the local resources, knowledge, and expertise that are available to help solve major local issues."

However, during the same week in which the charrette took place, city officials unexpectedly entered into an agreement with four local governmental entities to fund its own "Shoreline Master Plan" project. Each of the entities (the

Regional Transportation Authority, the Downtown Management District, the Port of Corpus Christi, and the Metropolitan Planning Organization, along with the City of Corpus Christi) pledged \$20,000 toward the \$100,000 cost of the planning project abruptly commissioned without the benefit of a qualifications-based selection process. The Shoreline planning project was folded into an existing city arena project already underway. (The city-owned multipurpose arena, scheduled for completion in the autumn of 2004, is a team effort by Architectonica of Miami, Thompson Ventulett Stainback of Atlanta, Sasaki Associates of Boston, and Gignac and Associates of Corpus Christi.) Although this rapid action came without advance publicity, city officials insist they were already considering the planning project and had commissioned an initial proposal from the arena team several months before the charrette was organized. City Manager Skip Noe has since said that the charrette effort and its proposal will be taken into account by the design team. In early December, Noe ordered his staff to schedule public meetings as early as February or March in which citizens may share ideas for a new bayfront with the design team. Noe told the *Caller-Times* that he expects to have a bayfront plan completed by the summer, along with a cost proposal that could become part of a November 2004 bond referendum.

Richter says the dialogue about the bayfront charrette continues among the architects, the residents, and city officials. Charrette participants have prepared a presentation of the charrette and development of the plan, which they have been invited to present to local civic groups. The architects also plan to meet with city council members to demonstrate the charrette process and help officials understand the development of the charrette plan. Richter adds, "Our role is to continue to advocate good design and urban planning on the bayfront, and hopefully, see that the seven principles that guided the charrette are respected in the final city plan. This charrette and its warm reception by the community demonstrated the power of architects coming together for the common good."

CANAN YETMEN

### Of Note: Brazos Chapter Charrette

**BRYAN** An all-day charrette on Nov. 15 brought together nine architect members of AIA Brazos to consider designs for the proposed Rotary Centennial Plaza, which will become part of the City of Bryan's new master plan for the downtown. The new plaza, to be funded by three Rotary International clubs in the Bryan/College Station area, will be located between the Children's Museum and the Bryan Public Library. Charrette co-chairs Eva Read-Warden, AIA, and Kay Henryson, AIA, along with Dr. Elton Abbott, AIA, organized the event, with local AIA members and faculty of Texas A&M University's College of Architecture leading the six design teams. In all, 65 members of the community, including Texas A&M students participated in the charrette. AIA Brazos raised \$5,000 by facilitating the charrette, with proceeds set to endow a scholarship through the Texas Architectural Foundation.

### 'Chicago Architecture Now' in Houston

The Rice Design Alliance presents a lecture series that will explore the contemporary state of architecture in Chicago and the upper Midwest. Speakers include Blair Kamin, architecture critic for *The Chicago Tribune*; Doug Garofalo of Garofalo Architects; Brad Lynch of Brininstool + Lynch Architects; Ralph Johnson of Perkins & Will; and Jeanne Gang of Studio Gang/O'Donnell. The lectures will take place at the Museum of Fine Arts, Houston. Call (713) 348-4876 for more information. JAN. 21 – FEB. 18.

### Landscapers Speak at UT Austin

As part of the "Landscape Futures" series co-sponsored by the Landscape Architecture Foundation, the "Connectivity and Landscape Change" symposium will take place at the UT Austin's School of Architecture. Speakers include William J. Mitchell, dean of M.I.T.'s School of Architecture and Planning; Michael Crow, president of Arizona State University; and Grant Jones, founder of Jones & Jones Architects and Landscape Architects in Seattle. Contact Anne Beamish at [abeamish@mail.utexas.edu](mailto:abeamish@mail.utexas.edu) or Barbara Parmenter at [parmentr@uts.cc.utexas.edu](mailto:parmentr@uts.cc.utexas.edu) for more information. JAN. 30 – 31.

### My Architect at DAF

The Dallas Architecture Forum will feature Nathaniel Kahn, son of Louis I. Kahn. The younger Kahn is a filmmaker who's latest project is 'My Architect: A Son's Journey,' a five-year exploration of his father's work and family. More information is available at [www.dallasarchitectureforum.org](http://www.dallasarchitectureforum.org). The viewing will take place at the Dallas Museum of Art. FEB. 5.

### Rowlett Lecture Series Features RTKL

The College of Architecture at Texas A&M University will present a series of lectures that will provide a unique glimpse into the history of RTKL, one of the nation's leading design firms. The twenty-fourth annual lecture series will feature panel discussions and presentations at the Presidential Conference Center at Texas A&M. For further information, visit <http://rowlett.tamu.edu>. FEB. 6

### Preservation Seminars Focus on Properties

The Building Industry Council of Preservation Texas will hold a series of seminars for architects, building professionals, and property owners who work with historic properties in Texas. Five three-hour seminars are scheduled at the Texas State Capitol Extension. Information available at [www.preservationtexas.org](http://www.preservationtexas.org). FEB. 19.





Commercial

TEXASTONE  
QUARRIES

P.O. Box 38  
Garden City, TX 79739  
915-354-2569  
www.texastone.com

Residential





## Texas Building Products, Inc.



Manufacturer of quality CMU's

- Spectra-Glaze™
- Burnished
- Rock Face

All units available in 16x16 and 16x24 sizes

(800) 368-1024

3261 Highway 108 • Strawn, Texas 76475  
Phone (254) 672-5262 • Fax (254) 672-5841  
Email: rdtbtp@txol.net

Circle 22 on the reader service card

# MARVIN

Windows and Doors

For more information, visit one of the centers listed below, or circle 28 on the reader service card.

## MARVIN WINDOWS PLANNING CENTER

**A BMC WEST Company**

**AUSTIN** MWPC Stripling Blake 3400 Steck Ave. Austin 78757 800/333-9203 512/472-0955

**CORPUS CHRISTI** 800/698-6618 361/814-7000

**DALLAS** 2619 Lombardy Ln. Dallas 75220 800/888-3667 214/351-1186

**FORT WORTH** 4455 Camp Bowie Rd. #110 Fort Worth 76107 800/955-9667 817/737-8877

**HOUSTON** MWPC Lone Star 16001 Tomball Pkwy. Houston, TX 77086 800/934-3502 281-440-9090

**HOUSTON** MWPC Lone Star 8303 Kempwood Houston, TX 77080 713-467-9890

**LONGVIEW** 1707 Loop 281 West Longview 75604 800/288-3667 903/759-9675

**LUBBOCK** 5920 66th Street Lubbock 79424 806/745-3363

**MCALLEN BROWNSVILLE LAREDO FREDERICKSBURG KERRVILLE** 800/698-6618

**SAN ANTONIO** 1211 Arion Pkwy., Ste. 106 San Antonio 78216 800/698-6618 210-494-8889

**LAS VEGAS** 6380 S. Valley View Blvd. Suite 114 Las Vegas, Nevada 89118 702/362-6270

**PHOENIX** 4841 South 36th Street Phoenix, Arizona 85040 800/558-8645 602/438-1127

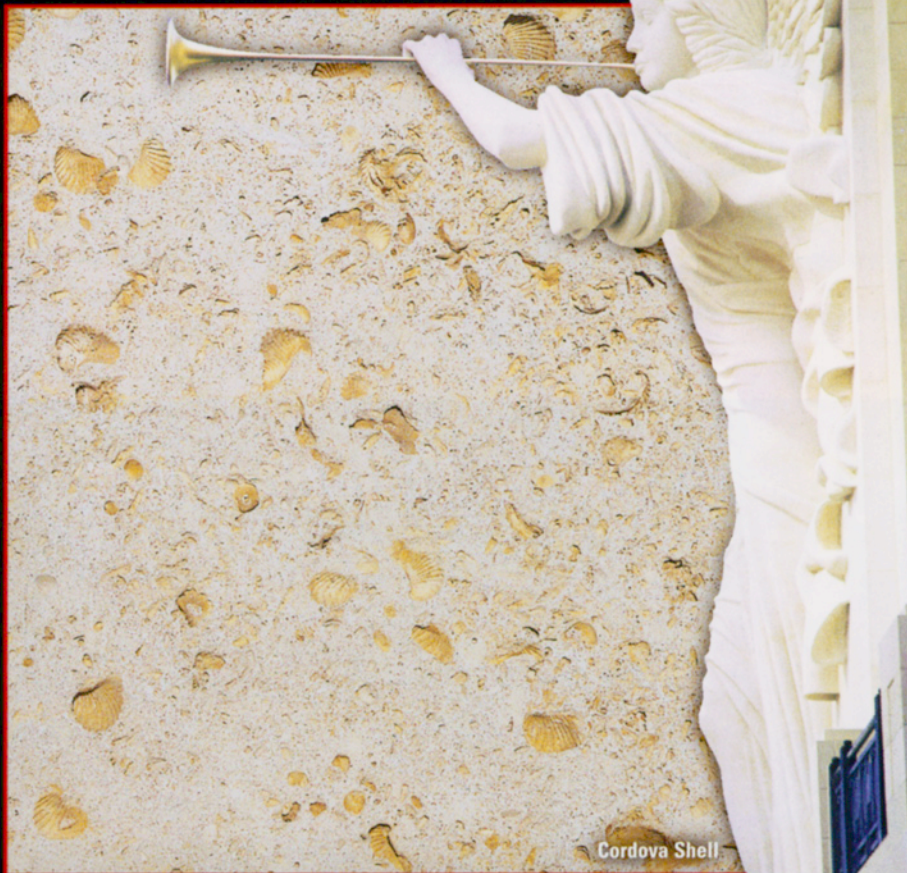
**TUCSON** 800/558-8645 602/438-1127

**TULSA** 800/283-6352 918/481-6352

**OKLAHOMA CITY** 1404 S. Fretz Edmond, OK 73013 800/766-4690 405/341-6775

**SHREVEPORT** 318/869-4220

## The Natural Choice



Nothing else quite compares to the appeal of our Cordova Cream, Cordova Shell, and Lueders varieties of natural Texas limestone. Please call, fax, or email today for your copy of our portfolio of recent projects.



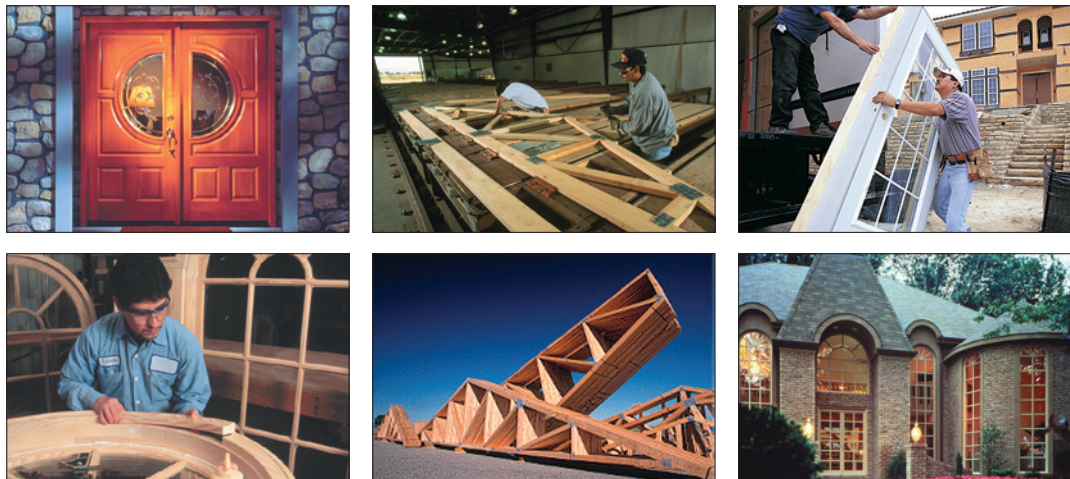
## Texas Quarries

P.O. Box 820 Cedar Park, TX 78613  
TEL 800-792-1234 FAX 817-390-2404  
www.texasquarries.com  
bseidel@acmebrick.com

Bass Performance Hall, Fort Worth Cordova Cream Smooth

Circle 16 on the reader service card





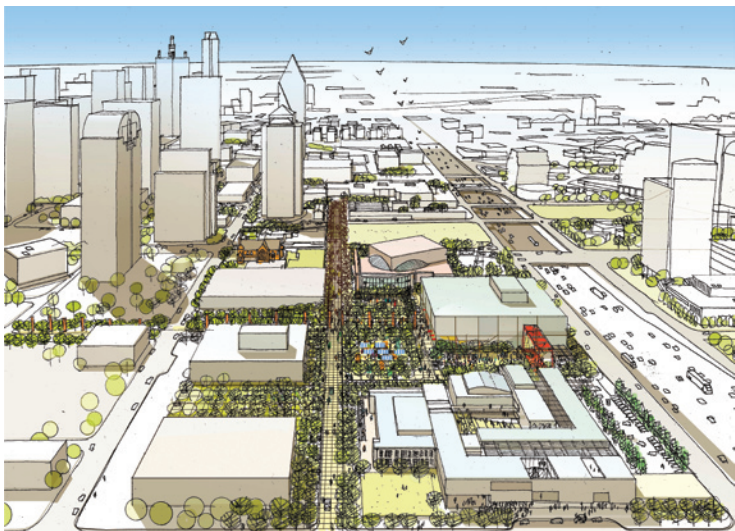
Everything you need from  
foundation to roof. Delivered daily.

Labor-saving manufactured components. Quality building materials. Precision-built trusses. Custom doors and millwork. All from one trusted supplier. With legendary customer service. If you're ready to build, see us at [bmcwest.com](http://bmcwest.com).



Serving All Major Markets in Texas  
Dallas-Fort Worth • Houston • Austin-San Antonio  
El Paso • Killeen • Abilene



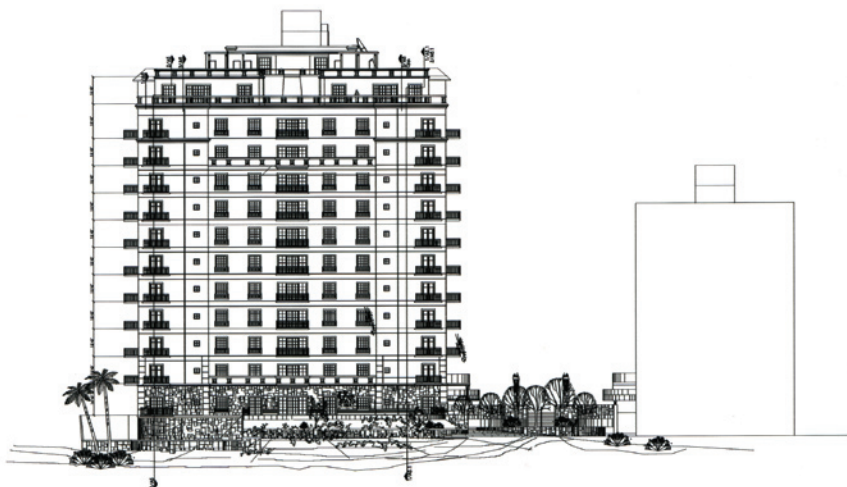
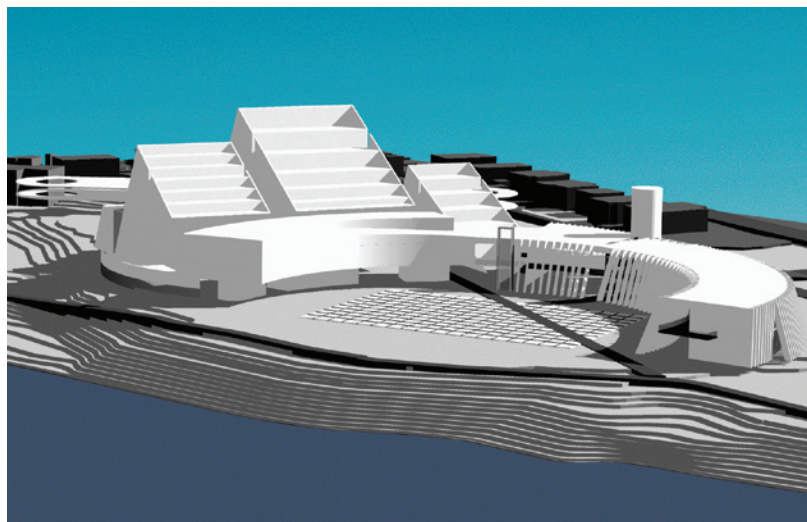


## Dallas Arts District Master Plan

In September, the Dallas Center for the Performing Arts Foundation unveiled its master plan for placing the Center's future venues within the Dallas Arts District. The plan is a collaborative effort between two world-renowned architectural firms, Foster and Partners of London and the Office for Metropolitan Architecture (OMA) of Rotterdam and New York. Facing a new Grand Plaza at the Arts District's eastern terminus will be the Center's two new performance venues – the Margot and Bill Winspear Opera House and a multi-form theater – and the Annette Strauss Artist Square. In addition, the existing Morton H. Meyerson Symphony Center and the future Booker T. Washington High School for the Performing and Visual Arts will also be adjacent to the Grand Plaza. The project is estimated to cost \$250 million, with landscaping by the Paris-based firm Michel Desvigne Paysagiste DPLG and Hillier of Dallas serving as program manager.

## Mexican-American Cultural Center

Planned in three phases, the MACC in Austin will be sited on a six-acre tract along the north shore of Town Lake just east of Congress Avenue. The facility, funded by the City of Austin, is foreseen as a place where everyone can share in the traditions of Mexico. The \$45 million project is the work of a joint venture between CasaBella Architects of Austin and San Francisco-based Del Campo & Maru, with Teodoro González de León of Mexico City serving as design consultant. Construction on the first phase is expected to begin late this year. The initial phase will include the middle section of the crescent-shaped structure, the smallest of the multi-story volumes, and the two-acre courtyard, or *zócalo*, shown in the foreground. The exterior will be pre-cast concrete panels finished in white with a rough texture. The MACC eventually will contain two performing arts venues and other public facilities.



## La Cascada

Designed with 46 luxury condominiums, La Cascada is now under construction along the Paseo del Río on the south side of downtown San Antonio. The project is the first multi-story condominium project to be built on the Riverwalk in 20 years. At the top of the 12-story building will be a roof-top pool, a gymnasium, and a meeting room facility. Construction of a second tower is planned, bringing the number of residential units to 62, with a commercial and retail center at ground level. Completion of the first phase, shown here, is expected in August, with phase two planned to follow soon afterward. The superstructure will be poured-in-place concrete, with metal stud walls and an EIFS and stone facade. The location is only a five- to ten-minute walk to La Villita, Market Square, and the King William historic district.



# Murcutt Explains Himself

'Architecture is really hard, you know,' affirms the Pritzker Prize winner.

by VAL GLITSCH, FAIA



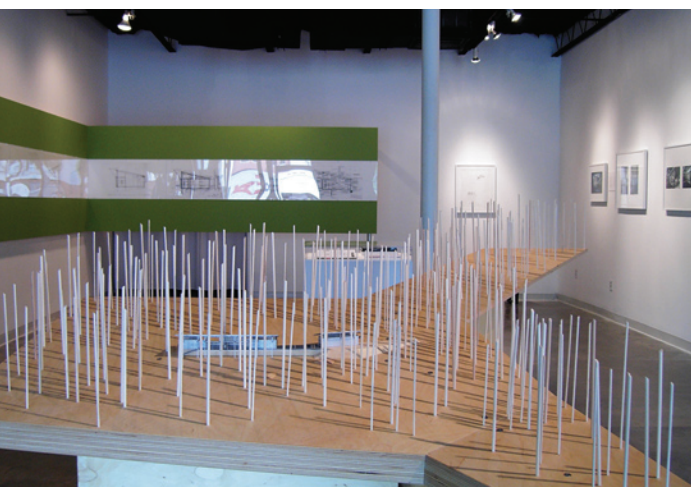
PHOTOS COURTESY VAL GLITSCH, FAIA

ON October 6, Australian architect Glenn Murcutt, laureate of the 2002 Pritzker Architecture Prize and the seventh recipient of the Alvar Aalto Award, spoke to a group of 250 [mostly architects] at the Children's Museum in Houston. The illustrated lecture accompanied the first solo exhibition of his work outside of Australia and was arranged by Brazos Projects, facilitated and designed by Carlos Jimenez, and underwritten by a grant from Hines Interests.

The evening began with Murcutt reading from Thoreau's *Walden*, and then from his own writing, originally published in the 1985 monograph of his work, *Leaves of Iron*, by Philip Drew.

Landscape in Australia is remarkable. I have learned much from scrutinizing the land and its flora. There is an over-riding horizontality. The flora is tough. It is in addition, durable, hardy, and yet supremely delicate. It

**'Glenn Murcutt: The Simpson-Lee House' at Brazos Projects was designed by Carlos Jimenez. Murcutt spoke about his work during a visit to Houston that coincided with the exhibit.**



is so light at its edges that its connection with the deep sky vault is unsurpassed anywhere. The sunlight is so intense...that it separates and isolates objects...The native trees read not so much as members of a series of interconnected elements but as groupings of isolated elements. The high oil content of so many of the trees combined with the strong sunlight results in the foliage shimmering silver to weathered greys...The foliage is not dense generally and the shadows are therefore a dappled light. This distinguishes our landscape from that of most other countries where the soft light serves to connect the elements of the landscape, rather than separate them....My architecture has attempted to convey something of the discrete character of elements in the Australian landscape, to offer my interpretation in built form.

Murcutt's work reveals his intentional mindfulness of both the real and lyrical implications of the buildings he creates, the materials employed, and the energy required to provide and sustain them. His designs respond not only to the physical requirements of a cooling ventilation and bug-free shade in summer or the warmth of gathered sunlight in the winter, but also to elements the psyche wishes for as well: a sense of privacy, security, serenity, and of belonging to, while fully experiencing, a place. In other words, his buildings create their own ideal climate while making peace with the prevailing climate. Murcutt has said that "a building should be able to open up and say, 'I am alive and looking after my people,' or instead, 'I'm closed now, and I'm looking after

my people as well.' To me this is the real issue; buildings should respond."

Nothing in Murcutt's architecture is fortuitous or unnecessary. Influenced early by a university professor who emphasized principles rather than specific solutions, Murcutt assimilated into his own work the notion of composite structures, in which structural demands are resolved by the integration of building elements working together, as he has described, "the muscles and bones of the human body work together." Consequently, his built projects exhibit not only the strength of his convictions but the strength of material and, the strength of economy, lightness, and, ironically, the delicacy he observes in the landscape.

Illustrating his talk with photographs and sketches of five projects — including images of the Simpson-Lee House, the subject of the exhibition — Murcutt revealed his design process as an inching along toward his ultimately elegant solutions. After describing some of the early schematic drawings as "really dumb and deadly dull," he quipped, "Architecture is really hard, you know. But the real ability is knowing something is really dumb and not building it....Architecture requires time to evolve if it is to be of any consequence."

Working without interns, computers, or cell phones, he has practiced mostly alone for the last 33 years, with a waiting list of patient clients. Drawn to the smaller scale of domestic work, because it provides him with a greater opportunity to experiment, Murcutt prefers the freedom of solitude "just to think, and doodle, and work without a whole lot of confusion." While he doesn't seem to require others' affirmation that what he is doing is right, he is fearless in taking to task bureaucratic standards that he *knows* are not right. His 12-for-13

"Murcutt" continued on page 21



# The Perils of PowerPoint

*The Cognitive Style of PowerPoint*

Edward R. Tufte

Graphics Press, 2003

24 pages with illustrations

by ROBERT MECKFESSEL, AIA

RECENTLY, our firm was notified that we had made the short list for a community college project and would be required to make a PowerPoint presentation to the selection committee. Although we've always considered ourselves early technology adapters and had owned Microsoft PowerPoint for years, no one in our firm had ever used it, preferring our beloved

and I knew too well the pitfalls of the program – appalling graphics and tiny low-resolution images animated by a dizzying array of fades, scans, wipes, dissolves, and arrows. Determined to do better, we conducted some research on PP's strengths and weaknesses and came across *The Cognitive Style of PowerPoint*, a booklet written by Edward R. Tufte and published last year. As a

long-time fan of Tufte's elegant books on visual presentation – his exquisitely illustrated and clearly written *Envisioning Information* is a personal favorite – I looked forward to his comments on the subject.

*The Cognitive Style of PowerPoint*, succinctly compiled within 24 pages, is a thorough, witty, and savage analysis of PowerPoint. More to the point, Tufte argues that PP is wreaking havoc on our educational, corporate, and professional institutions by propagating a facile solution to conveying often irrelevant information through gratuitous bullet lists and superfluous graphics. Unambiguously critical, he describes the attractions and distractions of PP quite concisely: "(PowerPoint) helps speakers to outline their talks, to retrieve and show diverse visual materials, and to communicate slides in talks, printed reports, and internet. And also to replace serious analysis with

an excessively linear presentation structure, conspicuous decoration, a preoccupation with format over content, and an over-reliance on a single model (that is, PP's default template) for organizing all content.

Examples are used to devastating effect, including slides from a Boeing Corp. PP presentation about tile damage sustained during the shuttle Columbia's final takeoff last January. In Tufte's opinion, Boeing engineers' reliance on standard PP templates produced an oversimplification of the facts which led to an unwarranted complacency and, ultimately, tragic results. Tufte, with brilliant clarity, describes how the essential data was obscured and why Columbia need not have disintegrated over Texas in the early morning of Feb. 1, 2003.

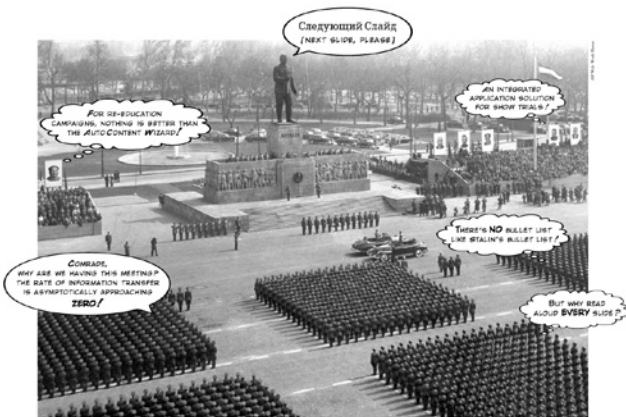
Other examples include a simultaneously hilarious and sobering PowerPoint version of the Gettysburg Address, prepared by Peter Norvig with PP's "AutoContent Wizard" feature. The deadening effect of PP is well illustrated as Lincoln's eternally resonant words are reduced to bullet points and utter banality. By extension, it is difficult to imagine great oration ever coming out of a PP presentation; closer to home, imagine Wright, Corbusier, or Kahn making PowerPoint presentations. (Well, actually, I can't.)

Tufte continues on to demonstrate how PP is creeping into other media, such as Web sites, paper reports, and even grade-school projects. Due to the inherently low density of information in an individual PP slide (merely 20 percent that of typical Internet news sites, he states), such documents are becoming "physically thick and intellectually thin." Tufte closes with sound and simple-to-follow recommendations for improving PP presentations, including avoidance of the standard PP templates, lengthy bullet lists, and reading aloud from PP slides.

"PowerPoint" continued on page 58

Edward R. Tufte

*The Cognitive Style of PowerPoint*



Military parade, Stalin Square, Budapest, April 4, 1956.

Copyright © 2003 by Edward R. Tufte September 2003  
Published by Graphics Press LLC P.O. Box 430 Cheshire, Connecticut 06410 www.edwardtufte.com

35mm slides backed up by an occasional board or two. Nevertheless, we chose to view this as an opportunity to explore a new medium and plunged in with only mild trepidation.

Having sat through a number of dreadfully dull PP presentations over the years (including, alas, a few at TSA conventions), my colleagues

chartjunk, over-produced layouts, cheerleader logotypes and branding, and corny clip art. That is, PowerPoint Phluff." Tufte focuses on the "cognitive style characteristic of the standard default PP presentation" to explain how and why this happens. Among the attributes of this cognitive style, he states, is an overemphasis on



continued from page 19

record of courtroom victories against government planners and lawmakers — noted by him as purveyors of “mediocrity and conservatism” — supports his belief that it is the responsibility of the architect to seize such opportunities as they present themselves. “Winning a court case against a planner is as good as winning a Pritzker Prize,” he muttered.

Much has been written about the childhood experiences that helped create the architect, and Murcutt has consistently credited his father as strongly influencing his career. With his father (a naturalist, a skilled builder, and an early admirer of Mies van der Rohe’s Farnsworth House), the young Murcutt studied the ways nature adapts itself according to the “stresses imposed by the individual location and the action of sun, wind, and rain.” His practice continually reflects this sensibility, as *the house* has become for him a source of endless variations on a theme.

Frequently a visiting professor at universities, Murcutt stated that “teaching has proved a wonderful way to learn.” In his own instructional voice during the lecture, Murcutt related experiences in terms of his father’s advice to him when he first opened his practice: “Son, now that you are in your own practice, you must remember: You must start out the way you would like to finish. For every compromise you knowingly make in your work, the resultant building will represent the quality of your next client. You must stand ground.”

The final project Murcutt showed was his Boyd Education Centre ‘Riversdale,’ which illustrated an instance when he had to say ‘no’ to a potential (and eventually enlightened) client. Initially excited by the project’s description and the extraordinary Shoalhaven River Valley site, Murcutt declined the invitation when he discovered he was one of two architects competing for the project for a \$2,000 (Aus) fee. To the audience, he proclaimed, “You know, generosity is a very important part of the relationship between an architect and a client; but when the client makes a move to cut you down at the beginning, you know there’s trouble ahead...To say ‘no’ shocks a client. But it’s not reasonable to give away our services when other people get paid for their work. You’ve got to set your boundaries there and then, and if you don’t, you’re in trouble for the rest of your career.”

Val Glitsch, FAIA, practices in Houston.



**BILL HADDON**  
Principal

Consulting and Design Services in Acoustics,  
Sound, Noise Control, Multi Media, Video,  
Broadcast and Theatrical Systems

Dallas • San Antonio

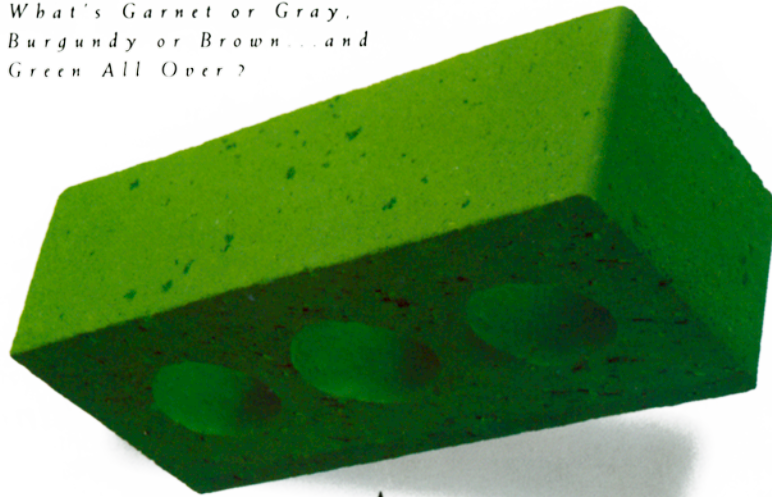
4801 Spring Valley Rd, Ste 113-B  
Dallas Texas 75244  
972.934.3700 (voice)  
972.934.3720 (fax)  
bhaddon@wjhw.com (email)  
www.wjhw.com (internet)

**WRIGHTSON, JOHNSON, HADDON & WILLIAMS, INC.**

Circle 212 on the reader service card

**A C M E B R I C K**

*What's Garnet or Gray,  
Burgundy or Brown...and  
Green All Over?*



**A**t Acme Brick Company we know that being green is just good business. If a company is striving for peak efficiency, and for long-term success, that company must be earth friendly. Long before ecology was in the news, Acme invested in expensive but highly energy-efficient kilns. And after Acme removes all the clay from a raw material site, reclamation efforts begin. During Acme's 104 year history, these efforts have resulted in twelve lakes which provide beautiful wildlife habitat. And throughout our company recycling is saving money while benefiting our environment. Brick is one of the world's most ecologically sound building materials, and we produce our entire palette of brick colors with the environment in mind.

*Acme Brick, from the Earth, for the earth.*



Check the phone directory to contact your local Acme Brick Company sales office.  
Or call 1-800-792-1234, extension 365  
<http://www.acmebrick.com>

Circle 16 on the reader service card





## A CONTEMPORARY RESPONSE TO THE CONDITIONS OF PLACE: EL COLEGIO CERVANTES DE TORREÓN, COAHUILA

by EDWARD R. BURIAN

THE border state of Coahuila in Northern Mexico, has long had a close relationship with Texas. In fact, when Mexico achieved independence from Spain in 1821, Texas and Coahuila formed a single state until 1836. In the context of this historically close relationship, a new private K-12 school for 2500 students designed by architect Antonio Méndez-Vigatá, in the bustling desert city of Torreón, offers many lessons for architects, educators, and builders, in terms of its innovative response to local conditions, pedagogy, and user experience.

Torreón, located in the Chihuahua Desert on the Nazas River and surrounded by mountains, has a landscape and climate reminiscent of the West Texas city of El Paso. Founded only 150 years ago around several haciendas, Torreón was named for the defensive tower (*torre*) which was a prominent feature of the hacienda which still remains at the center of the city. At the end of the 19th century, Torreón rapidly grew in importance as a transportation, commercial, agricultural, ranching, and distribution center in Northern Mexico at the convergence of three important rail lines, and was the scene of several important battles (several led by Pancho Villa) for control of the city as a railroad hub during the Mexican Revolution. In the 1930s it had eclipsed now dominant Monterrey, Nuevo Leon as a commercial center and had developed a rich, though undervalued, tradition of masonry architecture, a masonry tradition similar in some respects to that of West Texas cities such as El Paso. Torreón grew rapidly after WWII to become the largest city in the state of Coahuila, with a current population of two million. Unfortunately, recent architecture from the 1970s onwards has largely ignored this rich tradition, and has speculatively reproduced automobile commercial strip architecture in the United States.

What is most remarkable about the Colegio Cervantes is that it interprets this rich body of brick and adobe architecture built in Torreón in the nineteenth century and the first part of the twentieth century that is largely undervalued on both sides of the border, and critically engages the elusive issue of “place.” In this regard, the school thoughtfully responds to local conditions including its urban context, site, desert climate, regional cultural preferences, and local materials and contemporary regional construction practices.

The school is located in a recently developed commercial and residential neighborhood on the eastern edge of the city and is sited to form a “wall”

at the street with a series of interior courtyards, plazas, and irrigated gardens, not unlike a small city. According to Méndez-Vigatá the siting of the school “makes a place and landmark with an institutional presence in the city.” The oval shaped garden at the center of the school features indigenous desert trees and flowers, so that students can understand and appreciate the regional landscape surrounding Torreón. (Currently this “outdoor room” indicated on the site plan drawing is developed as a grass soccer field, which is a valuable asset for the school in this desert city with few grass soccer fields. The garden of indigenous landscape will be built when the school expands across the street where a separate high school will be built where the grass soccer field will be located). The school is organized around the regional typology of courtyards, which are deeply rooted cultural preferences and are used as outdoor rooms as well as circulation space for each of the four grade levels, K-2, 3-6, 7-8, and 9-12. Each courtyard is carefully differentiated, scaled, shaped, and articulated according to the grade level of the students. Building each of the four grade levels as a cluster has also allowed the school to be built in phases over time, as funds became available.

Méndez-Vigatá, a native of Torreón who was the former Director of the Department of Architecture at the Instituto Tecnológico Estudios Superiores de Monterrey (ITESM), also studied as an undergraduate at the ITESM and completed his graduate studies at the Architectural Association in London where he also worked for James Stirling. In discussing the school, he quotes the philosopher Ludwig Wittgenstein who stated that, “the meaning (in architecture) is its use.”

The youngest K-2 students and administration are housed in a circular courtyard building, which according to the architect, “is the most focused inward and protected, and suggest two sheltering arms, and create a sense





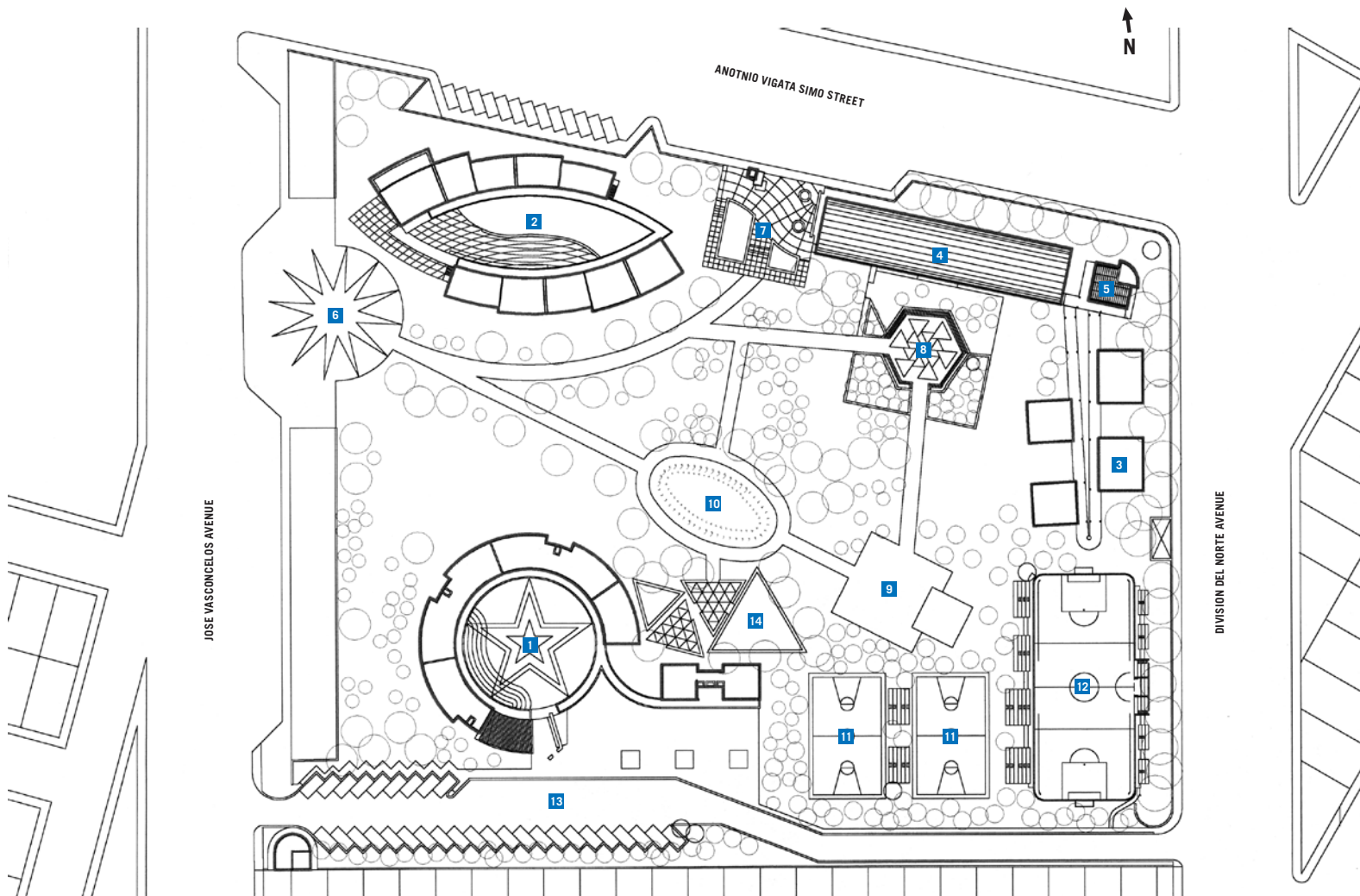
(opposite page) Architect Antonio Méndez-Vigatá stands in front of Colegio Cervantes. The high school block features a double roof for passive cooling, while the clock tower at the corner makes a landmark in the city. (left) The kindergarten's circular courtyard serves as an outdoor room for the youngest students, with the shaded ramp offering shelter for social interaction; all photos by Edward Burian.

of security.” The circular courtyard also has built-in outdoor seating, and is used for as an outdoor room for musical performances, dances, and teaching. As the students advance grades, they literally ascend the circular, shaded, covered ramped arcade to each succeeding grade, terminating in a shaded outdoor “*mirador*” (place to view outwards) which frames views to the mountains on the south side of the city. The scale of this courtyard and the classrooms are carefully considered in terms of window openings, toilet areas, and furniture. The shaded circulation space serves a social place for the students, while parents, grandparents, and extended family members wait in the shaded court near the main entrance to walk the youngest children home after school. Because students go to school from 8 a.m. until 2 p.m., when they return to their families for the

“Place” continued on page 59

#### SITE PLAN

- |                           |  |
|---------------------------|--|
| 1 KINDERGARTEN (K-2)      | 8 HIGH SCHOOL PLAZA                          |
| 2 ELEMENTARY SCHOOL (3-6) | 9 CEREMONIAL PLAZA                           |
| 3 MIDDLE SCHOOL (7-8)     | 10 NATIVE SPECIES DESERT GARDEN              |
| 4 HIGH SCHOOL (9-12)      | 11 BASKETBALL COURT AND SHADED SEATING AREA  |
| 5 CLOCK TOWER             | 12 SPEED SOCCER AND SHADED SEATING AREA      |
| 6 MAIN ENTRY PLAZA        | 13 BUS DROP OFF, K-2 DROP OFF, STAFF PARKING |
| 7 SECONDARY ENTRY PLAZA   | 14 PLAY AREA (K-2)                           |





Cast-in-place concrete conveys a timeless quality while directly referring to the adjacent, 100-year-old Main Building. (opposite page) Nicholas Clayton's Main Building, shown at left, and his Holy Cross Hall, in center, preside over the campus and comprise a formidable context for new campus structures. Trustee Hall is on the right.







# BALANCING ACT

by ELIZABETH DANZE, AIA

ST. EDWARD'S University in Austin last year marked the centennial anniversaries of two campus landmarks, both designed by Nicholas Clayton, the prolific architect best known in Texas for the Bishop's Palace in Galveston. Even after 100 years, those two grand structures — Main Building and Holy Cross Hall — still dominate the St. Edward's campus, a Catholic school with about 4,500 students. Other campus buildings, most constructed in the 1950s and 1960s, are less than distinguished when compared to Clayton's edifices.

Trustee Hall is the first building completed at St. Edward's since the 2001 implementation of a new campus master plan. Designed by Andersson-Wise of Austin, Trustee Hall is all the more

significant because it initiates a building campaign expected to accommodate an eventual doubling of the school's current enrollment. Future improvements include other academic facilities, dormitories, a chapel, a theater, and athletic fields. Therefore, the architectural character of the campus is at a critical crossroads, with each new building and outdoor space becoming a crucial element in helping to create a comprehensive campus experience as unique and captivating as found at any American university.

According to the master plan, Trustee Hall eventually will become part of a quadrangle bounded on the east by Clayton's Holy Cross Hall and neighboring his Main Building. That prox-

**PROJECT** Trustee Hall at St. Edward's University, Austin

**CLIENTS** St. Edward's University

**ARCHITECT** Andersson-Wise Architects

**CONTRACTOR** VRW Construction Company

**CONSULTANTS** Architectural Engineers Collaborative (structural); Baker-Aicklen & Associates (civil); Aguirre Corporation (MEP); Richardson Verdoorn (landscape); Rider Hunt Levett & Bailey (specifications); JEAcoustics (acoustics)

**PHOTOGRAPHER** Timothy Hursley

**RESOURCES** **CONCRETE MATERIALS:** Capitol Aggregates; **CONCRETE FORMWORK:** Peri Formwork System; **MASONRY UNITS:** Ladrilleras El Fuerte; **LAMINATES:** Wilsonart; **SHINGLES:** Berridge; **MEMBRANE ROOFING:** Siplast; **METAL DOORS AND FRAMES:** Steelcraft; **ENTRANCES AND STOREFRONTS:** Kawneer; **WOOD AND PLASTIC DOORS AND FRAMES:** Mohawk Door; **GYPSUM FABRICATIONS:** USG; **PAINTS:** Sherwin-Williams; **HIGH-PERFORMANCE COATINGS:** Sherwin-Williams





(above) The architects created numerous intimate settings both inside and outside the building. (opposite page) Seen from the north, the entry portal to a future quadrangle is flanked with elements punctuated by varied fenestration.

imity posed a challenge for Andersson-Wise: how to sensitively translate Clayton's idiom while simultaneously expressing a modern sense of construction? The Clayton buildings each have a definitive integrity and stand alone like eminently iconic monuments, which further challenged the architects with designing a new building that would not compete with the existing landmarks yet would project an authenticity all its own.

Ideally, Trustee Hall would function both as foreground and background, seemingly contradictory demands intended to effect a dynamic yet quiet and stately building. As foreground it needed to express qualities exceptional for our time while as background knitting itself into the small but powerful existing campus fabric. In this context, the resultant design for Trustee Hall straddles a fine line. While being perhaps a

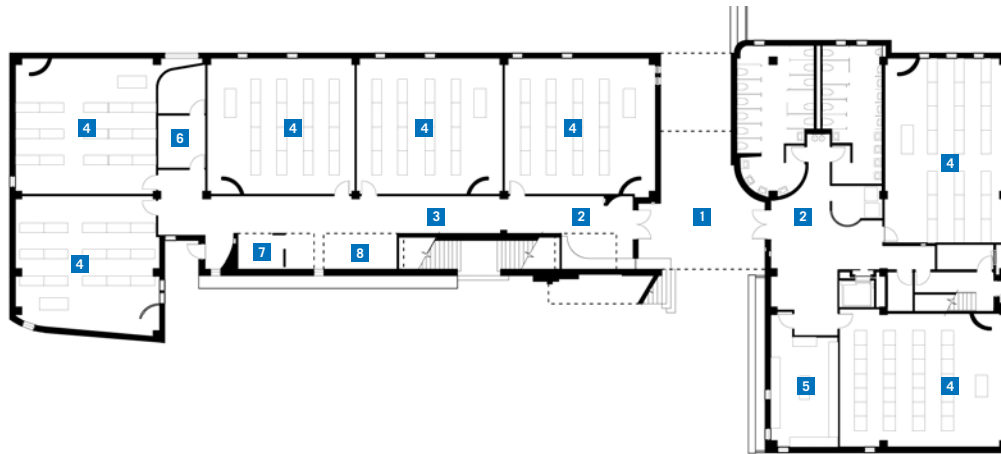
bit overly referential and eclectic, the skillfulness of the design ultimately wins out.

The material palette is carefully balanced between brick, which ties gracefully into the vernacular of the two Clayton buildings; red metal roof tiles, which satisfies the master plan requirement for red roofs; and concrete, which boldly introduces a new material. The cast-in-place concrete is massed and manipulated to assert its essential ancient, permanent properties. The arch, however, split in a way that mimics Clayton's structures, reduces the material to a decorative motif, both mannerist and referential. But the idea of this monolithic exterior wall of circulation and gathering spaces of balconies, stairs, and deep porch is beautiful in the way it opens the building to public view. This eclectic approach allows for multiple opportunities to create small-scale moments, such as a





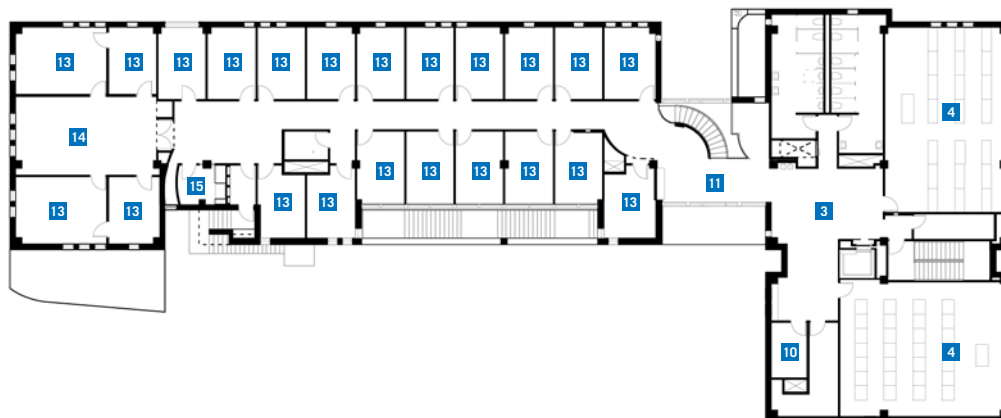




FIRST FLOOR



SECOND FLOOR



THIRD FLOOR

# FLOOR PLAN

- 1 LOGGIA
- 2 ENTRY
- 3 CORRIDOR
- 4 CLASSROOM
- 5 COMPUTER LAB
- 6 STORAGE
- 7 COPIER ALCOVE
- 8 SEATING ALCOVE
- 9 WORK ROOM
- 10 DATA CLOSET
- 11 LOBBY
- 12 RECEPTION
- 13 OFFICE
- 14 SECRETARIES
- 15 KITCHENETTE



cast-concrete bench for solitary reflection or an impromptu chat among classmates.

The building's entry is underplayed, and almost unclear. There is no lobby to speak of; instead the two parts of the building frame a passage. As future buildings are erected, this strategy will make more sense as the passage itself will delineate entry into a quadrangle, rather than into the particular building. Currently, the ambiguity of what is inside and out — and how those spaces might be occupied — works as one of the building's strengths.

Arthur Andersson's late partner Charles Moore freed a generation of architects from rigid adherence to modernist design principles—freeing them to the point where one might criticize their work for lacking a similar kind of rigor. Vestiges of this post-modern sensibility are apparent in Trustee Hall's massing, fenestration, and interior circulation. Roofs are concave and convex, hipped and truncated

pyramidal, metal tile and copper. Openings are rectilinear, slits, deeply beveled recesses, and pointed arches. Stairs and some elements of circulation are curved in curious, and perhaps too willful, ways. These elements sometimes seem at odds with the overall integrity of the design. However, in the best tradition of Moore's work, the building is successful in the ways it creates compelling spaces at a variety of scales, from the intimate to the most public, which all have character and quality so frequently lacking in many institutional buildings. The outdoor places created by Trustee Hall are significant not only in ways particular to its own circulation and spatial logic but also in the way the building will participate as part of a larger campus fabric. The landscaped open space works in concert with the building to organize, extend, and connect the campus.

With the completion of Trustee Hall, St. Edward's has a new building that successfully

contributes to an overall environment conducive to academic life in the fullest terms. What remains to be seen is how the next building slated for construction will participate in this rapidly growing campus. That building, a natural science facility, is now being designed by another of Charles Moore's former partnerships, Moore Ruble Yudell of Santa Monica, California. **T**

Elizabeth Danze, AIA, is a principal of Danze Blood Architects in Austin.

**In place of a traditional lobby, Trustee Hall accommodates circulation and entrance with a theatrical flourish.**







(left) The new housing complex adheres to the master plan for UT El Paso as modeled after ancient Buddhist monastery/fortresses (below) in Bhutan. (bottom) Benedict Hall is a prototypical campus building. (opposite page) The gateway to "Miner Village."



# EXOTIC VILLAGE

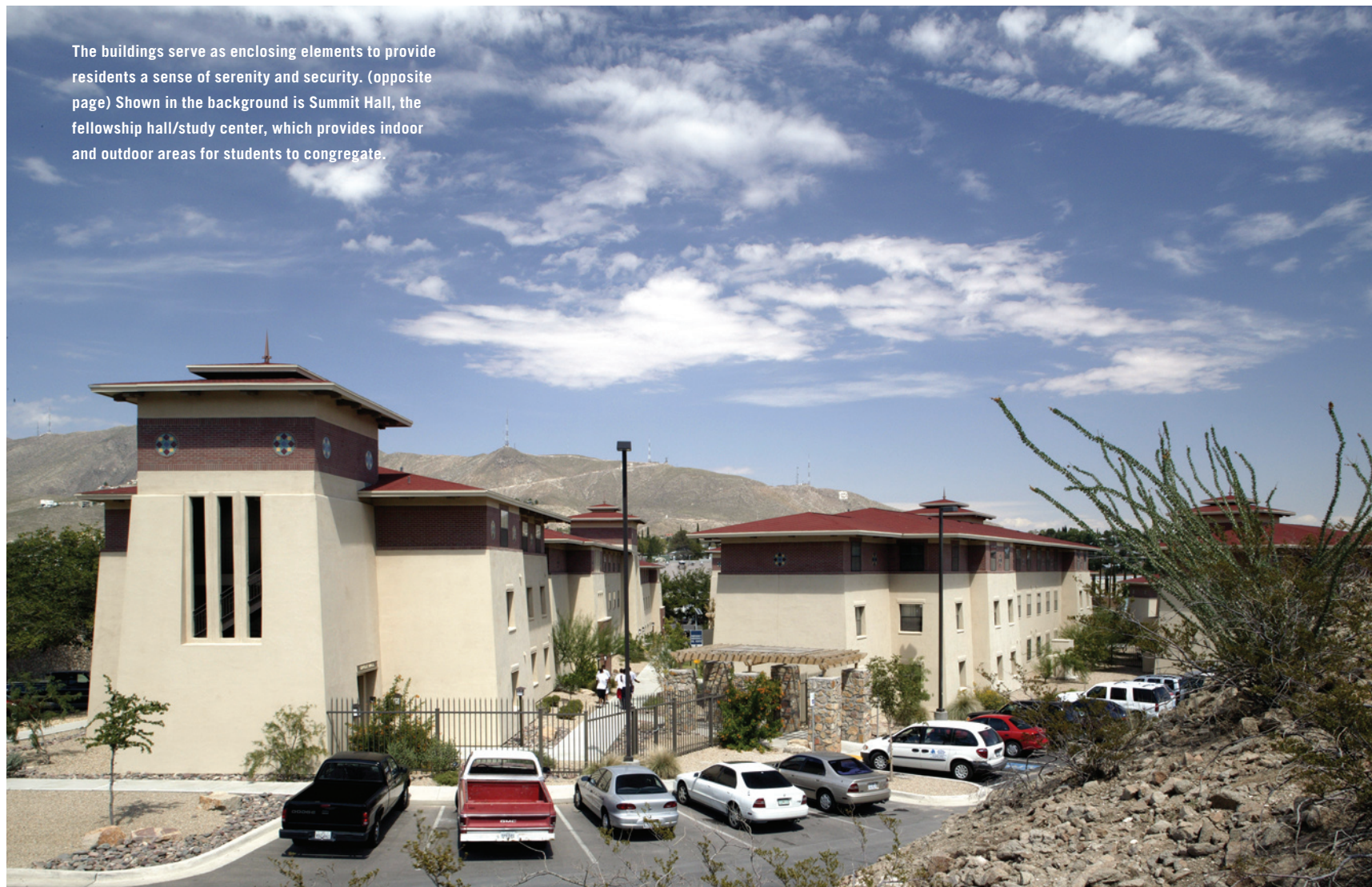
by ED SOLTERO, AIA







The buildings serve as enclosing elements to provide residents a sense of serenity and security. (opposite page) Shown in the background is Summit Hall, the fellowship hall/study center, which provides indoor and outdoor areas for students to congregate.



**PROJECT** University of Texas at El Paso Student Housing, El Paso

**CLIENT** University of Texas at El Paso

**ARCHITECT** BOKA Powell

**CONTRACTOR** CF Jordan

**CONSULTANTS** Walter P. Moore (structural); CSA Consulting Engineers (civil); Purdy McGuire (MEP); Matthew Borowski & Associates (landscape); Balis & Company (cost estimating)

**PHOTOGRAPHER** Charles Smith, AIA

**RESOURCES** SITE, STREET, AND MALL FURNISHINGS: Spaulding Light Poles and Fixtures; CEMENTIOUS DECKS: Gypcrete Flooring; UNIT MASONRY WALL ASSEMBLIES: EZ Wall Panel System, EZ Wall Thin Brick; MASONRY VENEER ASSEMBLIES: Summit Brick & Trim; PRE-FABRICATED WOOD JOINTS AND TRUSSES: El Paso Truss; LAMINATES: Wilsonart; BUILDING INSULATION: Owens Corning; EXTERIOR INSULATION AND FINISH SYSTEMS: STD-One Cost Stucco; SHINGLES: Atlas T-Lok; ROOF ACCESSORIES: Airvent; PREASSEMBLED METAL DOOR AND FRAME UNITS: Acore Doors; WOOD AND PLASTIC DOORS AND FRAMES: Prem Door; METAL WINDOWS: Alenco; GYPSUM BOARD FRAMING AND ACCESSORIES: Gypsum Products; TILE: Master Tile, Ceramic Tile; LAMINATE FLOORING: Armstrong VCT; PAINTS: Dunn Edwards; CARPETS: Cambridge Commercial

THE strong architectural heritage at the University of Texas at El Paso draws its influence from the eastern Himalayan Kingdom of Bhutan, a country surrounded by Bangladesh, India, and Tibet. UTEP's adherence to the Bhutanese influence can be directly traced to Kathleen Worrell, wife of the Dean, Stephen Howard Worrell, of what was then known as the Texas State School of Mines and Metallurgy, back in 1914. Their penchant for travel was often the subject of her paintings and writings. In fact, as fate would have it, Kathleen Worrell first saw the breathtaking photographs of the hidden kingdom's architecture while leafing through one of her favorite magazines, *National Geographic*, which coincidentally took place two years before a devastating fire gutted the main campus building. Close scrutiny of the photographs revealed an uncanny similarity between the terrain of Bhutan and El Paso. Armed with visual data,

she easily convinced her husband that this architectural "style" would integrate perfectly into the foothills of the Franklin Mountains and should therefore be adopted.

UTEP's "Miner Village" Student Housing by BOKA Powell of Dallas derives its inspiration from the same ancient design model. Specifically, the 13 structures which make up the housing complex are patterned after the great Bhutanese fortress/monasteries known as "dzongs." However, the architect not only complied with the mandatory architectural character criteria expected of all architects working on the UT El Paso campus, but also went beyond the call of duty and exercised great care in the siting of the individual structures. Dzongs, first built in Bhutan around the twelfth century, typically rose in strategic places, such as the entrance to a valley, the confluence of rivers, or the summit of a hill. Careful orienta-





tion of the modern replication likewise yields thoughtful and strategically scaled courtyards and spaces imbued with a sense of serenity and security which contribute to the residents' unique living experience. With the buildings sited along the perimeter of the complex, they serve as enclosing elements and minimize the need for ornamental screening and/or fencing while emphasizing the hilly topography.

A student fellowship hall/study center, complete with a two-story interior space suggestive of a quiet monumentality, dutifully discharges its task as the formal entrance into the housing complex. Concrete sidewalks stamped with flagstone forms surrounding this structure evoke memories of ancient stone-laid paths. (Unfortunately, similar sidewalks were not included throughout the complex.) Although locally quarried stone was a good choice for use in retaining walls and trellises, the column

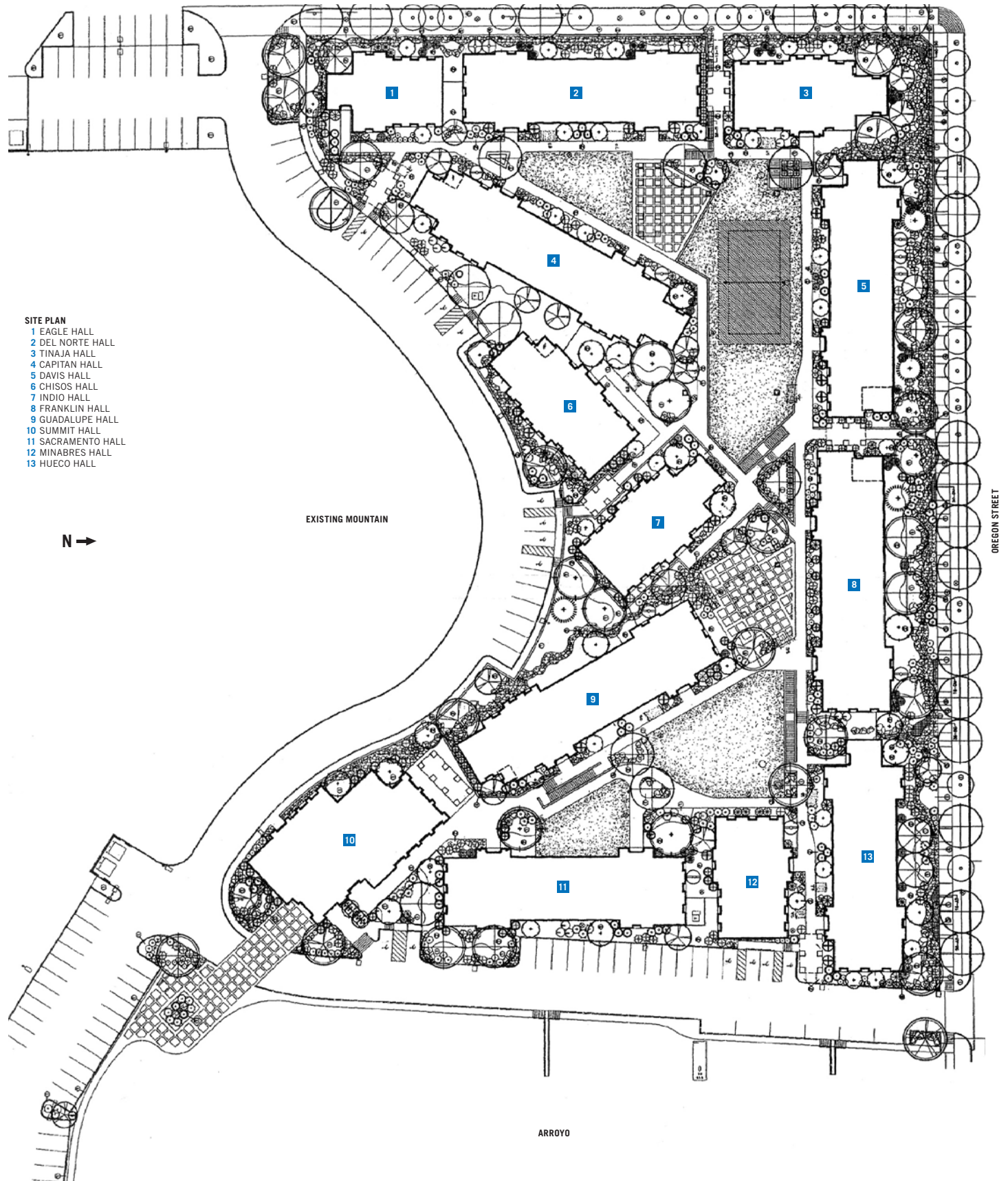
shapes and decorative Southwestern motif for the trellises appear to belong elsewhere. More consistent with the Bhutanese theme is the drought-resistant xeriscaping, complemented by pockets of green lawn, which echoes the diverse landscape of the Himalayan kingdom. The backdrop of the Franklin Mountains further intensifies the feeling of a small, remote mountain village.

Interior spatial planning comprised of living units in various sizes (and some outfitted to be handicap-accessible) are comfortably set within the historic twelfth-century model's traditional square or oblong plan, albeit with such optional modern amenities as kitchenettes and laundry rooms. The simple yet elegant three-story housing blocks are entered via a narrow interior courtyard which also encloses a staircase.

Although budgetary restrictions dictated wood-frame construction, further exacerbat-



ROBINSON AVENUE



SITE PLAN

- 1 EAGLE HALL
- 2 DEL NORTE HALL
- 3 TINAJA HALL
- 4 CAPITAN HALL
- 5 DAVIS HALL
- 6 CHISOS HALL
- 7 INDIO HALL
- 8 FRANKLIN HALL
- 9 GUADALUPE HALL
- 10 SUMMIT HALL
- 11 SACRAMENTO HALL
- 12 MINABRES HALL
- 13 HUECO HALL

N →

EXISTING MOUNTAIN

ARROYO

OREGON STREET





ing the challenge of creating an architecture consistent with the existing campus fabric, the architects nevertheless creatively achieved the battered walls, towering elements, and gently sloping roofs that pay homage to traditional Bhutanese fortresses. Off-the-shelf, single-hung aluminum residential windows bring natural light into the straightforward interiors but would have enhanced the massive quality inherent in the ancient structures had they been recessed deeper into the exterior walls. Exterior materials consist of crème colored stucco, asphalt shingle roofs, deep red colored brick clad entrances, and a decorative band of the same material with tile insets. These are *mandalas*, graphic, geometric representations

of the cosmos symbolizing the order and harmony which can be achieved by an enlightened mind. Followers of tantric Buddhism use them to support meditation and the more proficient adherents seek to absorb their power. Red, white, blue, yellow, and green — all widely recognized as auspicious colors — respectively represent fire, clouds, the sky, the earth, and water. Immediately below the roof overhang is the aforementioned wide red brick band — a *chimera* — which recalls the double nature of the ancient structures as not only fortresses but as religious refuges as well.

Strong ties between the Kingdom of Bhutan and the University of Texas at El Paso continue to be forged as a result of the exported architec-

**The Bhutanese theme coalesces seamlessly inside the housing complex, as seen looking northward to the Franklin Mountains.**

ture. A recent personal trip by Diana Natalicio, acting UTEP president, to the remote kingdom, has even resulted in Bhutanese student enrollment at the university. Whether the foreign students actually live in the complex or not, dispelling any fears of homesickness, most anyone would welcome the opportunity of living in this modern and efficient microcosmic recreation of a distant and exotic part of our planet. **T**

Ed Soltero, AIA, is a contributing editor of *Texas Architect*.



# PLANNED COMMUNITY FOR PRAIRIE SCHOLARS

by MARK LAM, AIA

The master plan for Cy-Fair College restores the coastal Katy Prairie and organizes the campus around a series of water features that provide flood control. (opposite page) Carefully planned outdoor amenities make the most of the manmade waterway.





**PROJECT** Cy-Fair College, Cypress

**CLIENTS** Cy-Fair College and North Harris Montgomery Community College District

**ARCHITECT** Gensler

**ASSOCIATE ARCHITECT** Cobourn Linseisen & Ratcliff, Inc.

**CONTRACTOR** Gilbane

**CONSULTANTS** Carter-Burgess (MEP, structural); SWA Group (landscape); Wrightson, Johnson, Haddon & Williams (lighting and rigging); Shen Milsom & Wilke (technology and audio visual); HMA Consulting (security) Cobourn Linseisen & Ratcliff (civil engineer) Wrightson, Johnson, Haddon & Williams (acoustics)

**PHOTOGRAPHER** Aker/Zvonkovic Photography

**RESOURCES** **CONCRETE MATERIALS:** Baker Concrete; **CONCRETE STAIN:** QC Construction Products; **UNIT MASONRY WALL ASSEMBLIES:** Southwest Concrete Products; **ARCHITECTURAL WOODWORK:** Quality Woodwork; **LAMINATES:** Pionite, Wilsonart, Formica; **MODIFIED BUTYLIUM ROOFING:** Johns Manville; **TRANSLUCENT WALKWAY CANOPY PANELS:** CPI; **DOOR HARDWARE:** Schlage Hardware, Von Duprin; **GLAZED ALUMINUM CURTAINWALL:** YKK-AP America; **ACOUSTICAL TILE CEILINGS:** Armstrong; **ACOUSTICAL PANEL CEILINGS:** Decoustics; **RESILIENT MATERIALS:** Mannington Commercial, Armstrong; **CARPET:** Interface, Milliken; **WALL COVERINGS:** Carnegie Xorel; **TENSION FABRIC STRUCTURE:** Duvall Design; **ACOUSTICAL TREATMENTS:** Decoustics; **PAINTS:** PPG; **HIGH-PERFORMANCE COATINGS:** Scuffmaster



MOST American towns don't spring simply from historical settings, and evolve slowly but steadily around a courthouse square or historic core. Instead, many have grown to become sprawling suburbs seemingly overnight. A prime example is the suburb of Cypress-Fairbanks which is organized around State Highway 290 just northwest of Houston.

When Gensler began the design of the Cypress-Fairbanks College, the architects were asked to create more than an easily accessible place for the community to learn. They were asked to design a pedestrian-oriented gathering place that would serve as a focal point for the surrounding community.

A modern-day interpretation of a traditional campus plan, Cy-Fair College includes 444,346 square feet on a 207-acre parcel of the Katy Prairie. Organized around a linear, manmade river and an 18-acre pond, the five initial buildings are sited around the pond like a frontier settlement on the open range. These buildings stand between the parking and waterway to provide a sheltered and very pleasant pedestrian environment. Carefully planned outdoor amenities (walkways, bridges, seating areas, and an amphitheater) and interior gathering spaces capitalize on the waterway and site organization. The new campus is an environmentally responsible development within the quickly

vanishing Katy Prairie, a sensitive ecosystem characterized by vast meadows of coastal prairie grasses sporadically punctuated by groves of trees usually growing beside ponds, streams, and bayous.

Through research aided by the Katy Prairie Conservancy, SWA Group Landscape Architects and Gensler's design team developed a carefully orchestrated plan that restores the Katy Prairie and beautifully integrates the landscape with the campus structures. Some 3,200 trees — all species indigenous to the prairie — were planted on the campus, including bald cypress, loblolly pine, Mexican sycamore, live oak, and mesquite. And because prairie grasses are defining elements of this natural landscape, SWA's mass plantings of grasses such as Indiangrass, Little Bluestem, Lovegrass, Gulf Coast Muhly and Switchgrass and have become the environmental signature of the campus. Horsetail reed and crushed blackstar granite beds finish the design with a modern elegance. Coreopsis and liatris wildflowers also will be introduced to enhance the seasonal and aesthetic quality of the landscape.

Sustainability was one of the primary design goals—natural prairie grasses were used throughout the site and in the parking islands, simultaneously reducing the heat load, water consumption, and maintenance cost. Simi-





larly, the central waterway not only serves as the organizing element and focal point for the entire project but it satisfies the requirements for storm-water detention. In addition, the waterway sustains the wildlife of the Katy Prairie and provides additional habitat for migratory bird populations. Cascading weirs and waterfalls incorporate shelves just below water level to “scrub” runoff water and improve overall water quality. The pond also serves as a source of low-cost, environment-friendly irrigation. This all-inclusive, collaborative approach exemplifies the project’s careful planning and thoughtful use of materials.

In addition, collaboration between Cy-Fair College and local volunteer firefighters yielded a mutually beneficial three-bay neighborhood fire station (designed by Carl Joiner, AIA, of Joiner Partnership in Kingwood) built on the campus with an adjacent training center for EMS, paramedics, and firefighting technology.

Similarly, cooperation between the college and the Harris County Public Library system yielded a campus/public library outfitted with 150,000 volumes, a children’s library, 270 computers, and an Internet café offering free Internet access to the public. Also available for public use are tennis courts, outdoor covered basketball courts, sand volleyball courts, softball fields, and a jogging trail.

Architecturally, the buildings are a simple and elegant combination of concrete block, brick, glass, and metal panels. Conscientious use of expensive materials and liberal use of common materials with simple but creative detailing helped Gensler to not only establish a very striking architecture but to also succeed in meeting the aggressive \$73 million budget.

One of the design goals was to create a variety of environments that support multiple teaching methods and learning styles. In response Gensler created a variety of learning spaces:

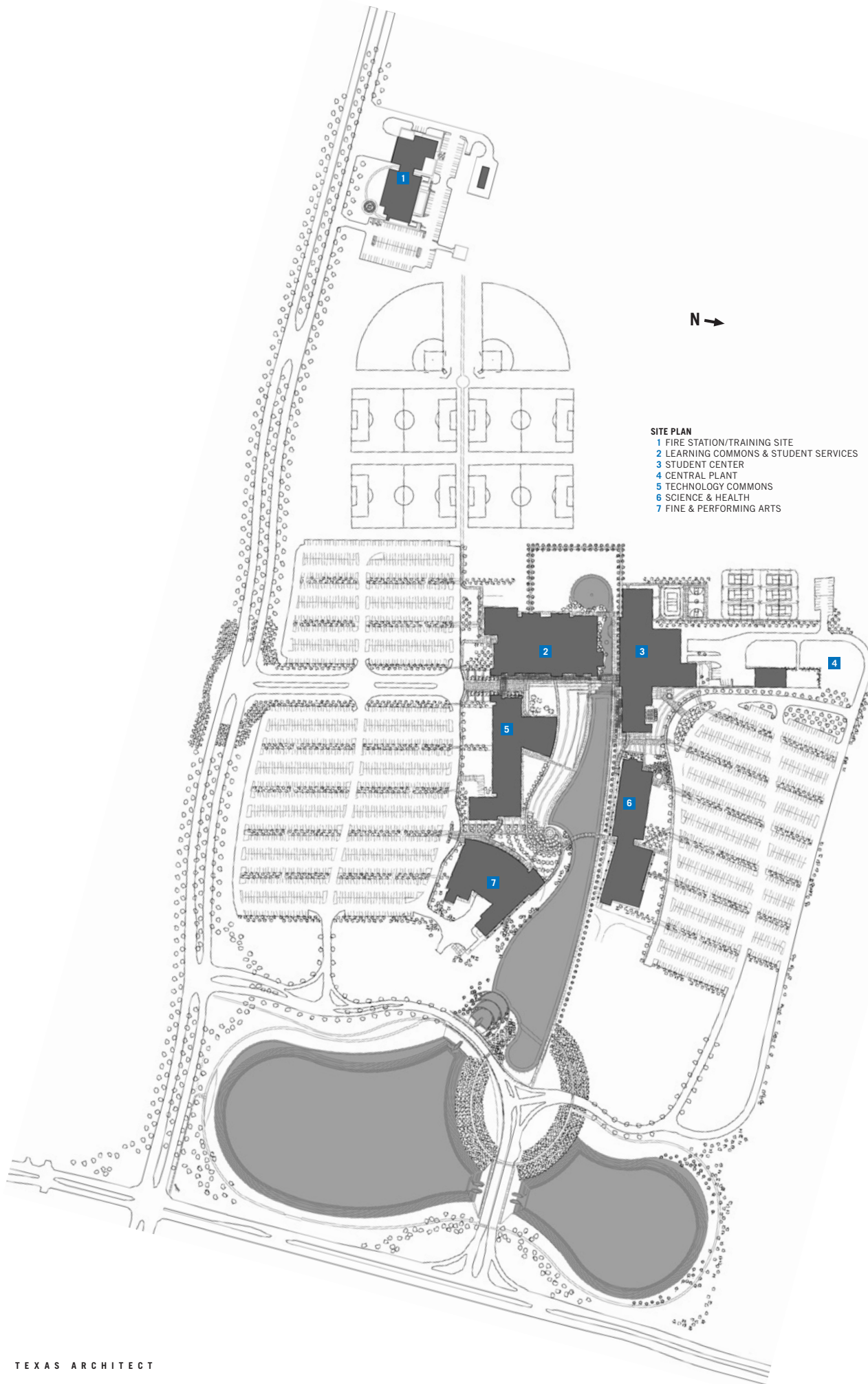




(opposite page) Students enjoy a variety of study areas throughout the campus. (this page, top and below) Rolling partitions on stained concrete floors allow the dining area to be reconfigured into a large lecture hall. Buildings are simple and elegant combinations of concrete block, brick, glass, and metal panels.







**SITE PLAN**

- 1 FIRE STATION/TRAINING SITE
- 2 LEARNING COMMONS & STUDENT SERVICES
- 3 STUDENT CENTER
- 4 CENTRAL PLANT
- 5 TECHNOLOGY COMMONS
- 6 SCIENCE & HEALTH
- 7 FINE & PERFORMING ARTS





Gensler wanted to create a place where “students are encouraged to learn to continue to learn for the rest of their life,” says C.K. Pang, the project’s lead designer.

large/small, public/private, indoor/outdoor, formal/casual; with as many flexible elements as possible and as few fixed elements as necessary. Similarly, a variety of casual study areas are woven through the fabric of the campus to provide comfortable places to rest or visit with friends.

While flexibility in design is an often talked about concept, this campus exemplifies what can be achieved. Flexible elements such as the moveable walls, rolling partitions, or “spare” classrooms encourage staff and students to rearrange and customize each space to suit their needs. Furnishings reflect the same goal of designing flexible, adaptive spaces whether it is the rolling partition/benches which are easily moved about to re-arrange the dining room, the trapezoidal tables found in the classrooms which support a variety of group or lecture formats, or the comfortably upholstered chairs in one of the second floor study lounges outfitted with large

highly visible casters. Not only are spaces and fixtures designed to be flexible, but users are encouraged to configure and re-configure all elements as they desire. This obvious outreach and invitation for personalization has a very welcoming effect. First-timers walk into the campus as visitors but quickly feel at home. The relaxed campus atmosphere immediately creates a comfortable sense of ownership and belonging.

The response from the community has been extremely favorable. Opening day had an enrollment of 70 percent of total capacity, and two months later the conference center was booked virtually every day. “No matter what time of day you visit, you will see the community here and using the facilities, sitting by the lake and reading, walking their dogs, or using the library,” Dr. Diane Troyer, president of Cy-Fair College, said recently. “When people come on campus they just love being here. The 18- to 25-year-old

students are just bubbling over with affection for [the campus] which I think is pretty unusual; to find college age students saying ‘I just love being here.’ That was one of the things we worked hard on in the beginning—to create an atmosphere where students don’t just come to class and then leave campus as soon as they can, but one that would draw them, keep them, have them be active and involved and actually want to be here. I think that has all been accomplished.”

A walk through the campus proves Dr. Troyer’s point. Strolling along, one can’t help but want to be a student and take advantage of the many settings available, whether a quiet nook for reading a book, a balcony for daydreaming, a seat under the sails of the Internet café for a cup of coffee, or lounging in the sunshine and watching people pass by. **T**

Mark Lam, AIA, is a vice president of SHW Group Architects in Houston.



# Celebrating School Design

JUDGING and critiquing architectural projects always presents a special challenge. How does one properly evaluate an architectural setting without actually walking through it; experiencing it as a place or a space in person? Do photographs, slides, and PowerPoint presentations convey the essence of the project, the ideas, and the sense of well-being while in it? Unfortunately short of visiting all the entries and experiencing them personally, the best evaluation we currently have is photographs, drawings, and words, to convey a two-dimensional sense and a 30-second look to discover the charm, ideas, and power of the place. The places here are public schools in Texas.

Eighty entries submitted by 13 Texas firms were evaluated this summer for the annual Texas Association of School Administrators/Texas Association of School Boards (TASA/TASB) Conference held in Dallas on September 19-21, 2003. The intent of the competition was to select those schools which exemplified the best

of Texas school design. Specifically, the goal was to select the Caudill Award winner and criteria winners in five categories. They are: Value, Process of Planning, Design, Educational Appropriateness, and Innovation. The criteria for the Value category includes energy-efficiency and environmental solutions; life cycle cost efficiency; cost per square foot; flexibility, adaptability, and/or expandability; creative use of materials; community multipurpose use of space; and site development. Process of Planning includes teacher, student, parent, and community collaboration; and structure of the collaboration process. The Design category consists of architectural solutions and aesthetics; safety and security impact; flexibility, adaptability, and/or expandability; creative use of materials; community multipurpose use of space; space relationships (student and staff); and site development. Educational Appropriateness includes instructional program delivery; space relationships (student and staff); tech-

nology integration; safety and security impact; community multipurpose use of space; and activity appropriateness. Innovation criteria are teacher, student, parent, and community collaboration; energy efficiency and environmental solutions; life-cycle cost efficiency; technology integration; community multipurpose use of space; safety and security impact; flexibility, adaptability, and/or expandability; and architectural solutions and aesthetics. Featured in the following pages are five of the 80 awarded projects: the Caudill Award winner and four schools selected for publication from the winners in the Design category.

Projects could be the winner in some or all categories. Both new and renovation projects were evaluated as well as special building types such as School District Administration Board facilities or stadium/athletic complexes. PowerPoint presentations were the order of the day for

Portfolio continued on page 50

**The possibilities  
will amaze you!**



## Something Special

Beach Sheet Metal Company is celebrating 52 successful years of providing quality metal work. If you are seeking quality workmanship and reliable service, backed by honesty and integrity, we would welcome the opportunity to visit with you.

You may already be familiar with our quality roofs, but we also offer customized specialty items to enhance the value and beauty of your home. Wherever you are located, we can ship our products to you. We will be glad to help you realize your ideas.



BEACH SHEET METAL COMPANY, INC.

"Pride in Workmanship Since 1952"

You can see more of our work at <http://www.beachsheetmetal.com> or contact us.

**Beach Sheet Metal Company, Inc.**

353 Long Creek Road • Sunnyvale, Texas 75182

972.226.4440 Phone • 972.226.4441 Fax • [beachsm@swbell.net](mailto:beachsm@swbell.net)

Circle 200 on the reader service card





# Sabine Pass K-12 School

PROJECT Sabine Pass K-12 School, Sabine Pass

CLIENT Sabine Pass Independent School District

ARCHITECT Bay Architects

CONTRACTOR ICI Construction

CONSULTANTS Fittz & Shipman (structural); M&E Consulting (MEP); Frank Clements & Associates (food service); Brooks & Sparks (civil)

PHOTOGRAPHER Jud Haggard

## Caudill Award

Located at the mouth of the Sabine River, Sabine Pass School serves students in kindergarten through twelfth grade. Because of the previous coastal floods that have swept through the town, the school district wanted a solid and durable school to fulfill the needs of both the students and the town's other residents. Complete access to the library during off hours, parent computer training classes, and a hurricane shelter in the cafeteria are just a few strategies that the design encompasses. Because there is only one way out of the town, there was a strong need for an emergency shelter. "Extra structure and reinforced perimeter walls surround the shelter which helps to maintain a focal point and enables the community to survive during disaster," said lead architect Brad Hughes, AIA. In fact, this educational facility is designed for 125 m.p.h. winds. Wanting to express the town's Texas Gulf Coast heritage, the architect

chose a lighthouse motif. Not only does this function as an observation vantagepoint, but it also houses space for science and art classes, multi-purpose meetings, and staff gatherings. "The design is centered around the lighthouse and serves as a drawing magnet to the school," said Hughes. "The lighthouse proved to be a success because it can be seen by the entire community." Working around the site's low sea level created a variety of challenges for the design team. Elevating the school on concrete piers enabled a covered parking area on the ground floor for teachers and administrators. "Because of the low sea level, we were able to surround the school with elevators and stairs and design a four-story school," recalled Hughes. This educational facility was completed in May 2002 and adds an innovative and interesting profile to the town of Sabine Pass.

JENNIFER MCCUTCHEN

RESOURCES MASONRY UNITS: Pacific-Clay Brick, Eagle-Cordell Concrete Products; CAST STONE: Precast Concrete Services; GLAZED MASONRY UNITS: Pittsburgh Corning; FIBERGLASS STAIRS: IKG Industries; BUILDING INSULATION: UC Industries; SPECIALTY DOORS: Overhead Door of Beaumont, Overly Door Company; UNIT SKYLIGHTS: CPI International; GYPSUM BOARD FRAMING AND ACCESSORIES: USG; TILE: Daltile; ACOUSTICAL CEILINGS: Celotex Corporation; ATHLETIC SURFACING: Tuflex Rubber Flooring; PAINTS: Sherwin-Williams; VCT: Armstrong Commercial; ACOUSTICAL WALL PANELS: Wall Technology; CARPET: Collins & Aikman; PORCELAIN TILE PAVERS: Crossville Ceramics; PROTECTIVE COVERS: Petersen Aluminum

FLOOR PLAN  
1 CLASSROOMS  
2 LIBRARY  
3 ADMINISTRATION  
4 CAFETERIA  
5 KITCHEN  
6 ASSEMBLY  
7 MEDIA CENTER  
8 ART ROOM  
9 TEACHER WORKROOM





When choosing  
an engineering firm,  
it's best to go  
by the numbers.

We have served:

575 Texas school districts and

47 colleges, universities & schools across the country

We have:

29 years of service to the education community

When you need quality air-conditioning, mechanical, electrical, or technology design/engineering services ... just do the math! Whether you're building a new facility or updating an existing one; replacing old air-conditioning; initiating an energy management program; or wiring your school to connect classrooms to the Internet .... our experience can benefit you. Contact James McClure, P.E. in our Tyler office. Because, when you go by the numbers, it all adds up to Estes, McClure & Associates, Inc.

Estes McClure & Associates, Inc.

3608 West Way  
Tyler, TX 75703  
903.581.2677

[www.estesmcclure.com](http://www.estesmcclure.com)



Circle 36 on the reader service card

The Nature  
Conservancy   
SAVING THE LAST GREAT PLACES ON EARTH



we saved some texas for you.

With the help of communities, businesses and people like you,  
The Nature Conservancy preserves special places close to home  
and deep in your heart. Help us save the last great places in Texas  
and around the world. Visit [nature.org/texas](http://nature.org/texas) or call (210) 224-8774.

Photo by Barry Smith, © The Nature Conservancy of Texas

## BERRIDGE...THE WIDEST SOURCE OF ARCHITECTURAL METAL PANELS TO FIT ANY APPLICATION!



Horizontally applied Berridge S-Deck Panels with Satin Finish Galvalume contrast with brick and stone on the walls of this elementary school. Undulating Concave and Convex Curved panels add particular flair to highlight a major entry.

Photography: Mark Trew



**Project**  
EUGENIA PORTER RAYZOR  
ELEMENTARY SCHOOL, DENTON

**Architect**  
SHW Group, Inc., Dallas, TX

**General Contractor**  
CHARTER BUILDERS, DENTON, TX

**Installer**  
CBS Roofing Services, Denton, TX

**Berridge Sales Representative**  
CONNER-LEGRAND, LEWISVILLE, TX

**Berridge Product**  
Berridge Curved & Straight  
S-Deck Wall Panel

**Berridge Finish**  
Berridge "SATIN FINISH GALVALUME"

**Berridge Manufacturing Company**

6515 Fratt Road, San Antonio, Texas 78218 | 800-669-0009 | [www.berridge.com](http://www.berridge.com)

Circle 102 on the reader service card





# Bluebonnet Elementary

**PROJECT** Bluebonnet Elementary School, Keller

**CLIENT** Keller Independent School District

**ARCHITECT** Hahnfeld Hoffer Stanford

**CONTRACTOR** Charter Builders

**CONSULTANTS** Baird Hampton & Brown (MEP); Metro Structural Consultants (structural); Teague Nall & Perkins (civil); Landscape Alliance (landscape); H.G. Rice & Company (food service)

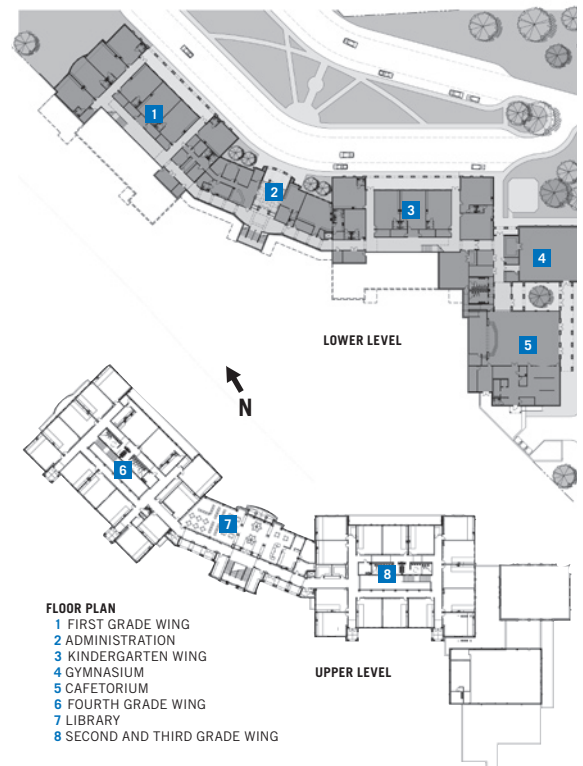
**PHOTOGRAPHER** Michael Lyon

Completed in the summer of 2002, Bluebonnet Elementary School in Keller serves children in kindergarten through fourth grade. The appearance of this 90,000-square-foot facility responds to the district's desire for a traditionally styled school. The two-story building is strategically designed to accommodate the steep slope that traverses the site. "Because of the large slope, there was no way to put prototype detail in the design and still achieve a traditional feel for architecture," said lead project designer David Stanford, AIA. The facility is composed of four distinct units. Two classroom blocks flank a center administration element while the fourth unit houses the cafeteria and gymnasium. The administrative unit serves

as the primary control entry to the facility, with a central stairway providing access to the upper-level library. "The two-story common space provides a focal point for each side of the building and simultaneously adds a nice large scale to the neighborhood," said Stanford. Interior hallways and covered exterior walkways link all four units. "Because the slope was a major element to work around, rather than having canopies, we wanted to incorporate covered walk areas into the building for picking up and dropping off students," said Stanford.

JENNIFER MCCUTCHEN

**RESOURCES** CONCRETE PAVEMENT: Lofland Company; MASONRY UNITS: Acme Brick; CAST STONE: Advanced Cast Stone; WATERPROOFING AND DAMPROOFING: Sonneborn; BUILDING INSULATION: Celotex; ROOF AND WALL PANELS: Berridge; FLASHING AND SHEET METAL: Berridge; WOOD AND PLASTIC DOORS AND FRAMES: Buell Door; ENTRANCES AND STOREFRONTS: Kawneer; GYPSUM BOARD AND FRAMING ACCESSORIES: Dietrich, Georgia-Pacific; ACOUSTICAL CEILINGS: Armstrong; WOOD FLOORING: Robbins Sports Surfaces; WALL COVERINGS: Koroseal; PAINTS: Sherwin-Williams; CARPET: Collins & Aikman; PORCELAIN TILE PAVERS: Crossville Ceramics; PROTECTIVE COVERS: Petersen Aluminum





# SAFETY



Nowhere is safety more important than at school. Coronado Builders seeks to provide a safe workplace for every team member, subcontractor and visitor to all site locations. And we have the safety record to prove it—31% better than the industry average. We also have an impressive 26-year track record with school superintendents. Our proprietary ValuePlus™ delivery system keeps them informed and keeps their school projects on time and on budget. Call Coronado today, and it's safe to say we'll build you a great school.



Fort Worth Office • 420 Throckmorton Street, Suite 740 • Fort Worth, Texas 76102 • Phone (817) 336-0696 • Fax (817) 336-0649  
Dallas Office • 2707 N. Stemmons Freeway, Suite 155 • Dallas, Texas 75207 • Phone (214) 637-3390 • Fax (214) 637-3396 • [www.coronadobuilders.com](http://www.coronadobuilders.com)

*Construction Services Since 1977*

Circle 45 on the reader service card





# Bransom Elementary School



**PROJECT** Richard Bransom Elementary School, Burleson

**CLIENT** Burleson Independent School District

**ARCHITECT** SHW Group

**CONTRACTOR** Coronado Builders

**CONSULTANTS** Estes, McClure & Associates (MEP); Cheatham & Associates (civil); SHW Group (structural) Grubbs Ramsey (landscape); JMK Design & Associates-H.G. Rice (food service)

**PHOTOGRAPHER** Mark Trew

Burleson ISD had a vision for its newest school. They wanted to provide Bransom Elementary School students a nature and environment-oriented curriculum, as well as a facility that would introduce conservation habits. The result is a school filled with sunlight, built with energy-efficient systems, and organized with outdoor classrooms where students experience the natural world. These classrooms include two rainwater harvesting systems and storage cisterns to save rainwater for the students' gardening projects. Scott Milder of SHW Group said the objective was to create a setting which would increase students' excitement about attending school. "Our role as architects is to provide an environment where the kids feel more free to learn," Milder said. During the day, the school uses recessed windows, natural light monitors positioned on the roof and a false ceiling composed of vertical baffles to diffuse the sunlight beaming into each

classroom. "You can have a controlled shelter environment, and at the same time you are bringing the outdoors inside," Milder said. The school employs artificial light only during bad weather and evenings, greatly reducing electricity costs. Bransom's interior features natural materials, which supplement academics, including exposed cork display walls for student assignments and fossilized limestone at the library circulation desk. The fossilized limestone provides imprints, which students can make rubbings of on their own paper. "[The desk] was used as a focal point," Milder said. "It's an actual teaching tool that is centrally located for easy access to everyone." Completed in August 2002, this \$7.8 million school not only can house 550 students, but also exemplifies the educators' commitment to conservation throughout the entire learning process.

SANDRA TAYLOR

**RESOURCES** RETAINING WALLS: Anchor Wall System; CAST STONE: Advanced Cast Stone; UNIT MASONRY WALL ASSEMBLIES: Acme Building Brands, Hohmann & Barnard; WATERPROOFING AND DAMPPROOFING: W.R. Meadows Sealtight; BUILDING INSULATION: Owens Corning; MEMBRANE ROOFING: GAF; ENTRANCES AND STOREFRONTS: US Aluminum; GLASS: AFGD Glass; GYPSUM BOARD FRAMING AND ACCESSORIES: Unimast; GYPSUM FABRICATIONS: USG; TILE: Daltile; ACOUSTICAL CEILINGS: USG; PAINTS: ICI Dulux



**FLOOR PLAN**  
 1 ADMINISTRATION  
 2 CLASSROOMS  
 3 DINING/KITCHEN  
 4 GYMNASIUM  
 5 MEDIA CENTER  
 6 STAGE/MUSIC  
 7 OUTDOOR LEARNING AREA







# Welcome home to our range

The multicolored layers of Palo Duro Canyon enliven the open range of Texas. Striations in the canyon walls inspired the design of a nearby visitors' center. Here, vibrant masonry hues recall a familiar feature of the state's landscape: the distinctive colors of Acme Brick. Texans have built with Acme more than with any other brick, since 1891. Today, more than ever, selecting Acme means coming home to trusted quality and style.



*"For this design, we found brick to be the perfect material to help us capture the spirit of the nearby Palo Duro Canyon. Acme Brick provided the large palette necessary to create the subtle striations and sculptural qualities."*  
—Elizabeth Chu Richter, AIA, Richter Architects



Winner, 2003 Brick in Architecture Award

Texas Travel Information Center, Amarillo  
Owner: Texas Department of Transportation  
Architect: Richter Architects, Corpus Christi  
General Contractor: Plains Builders, Inc., Amarillo  
Masonry Contractor: Broadus Masonry, Inc., Amarillo  
Photographers: Craig Blackmon, AIA, BlackInk, David Richter, FAIA (snow)

Please visit us on the internet: [www.acmebrick.com](http://www.acmebrick.com)  
or check the phone directory to contact your  
local Acme Brick Company sales office.  
Or please call 1-800-792-1234.

**ACME  
BRICK**  
*Since 1891*





## Franco Middle School

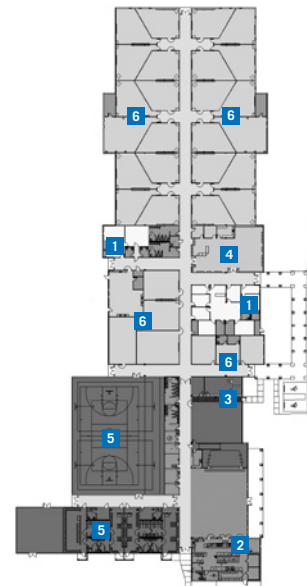
**PROJECT** Franco Middle School, Presidio  
**CLIENT** Presidio Independent School District  
**ARCHITECT** Pfluger Associates Architects  
**CONTRACTOR** The ABD Group  
**CONSULTANTS** Barron Engineering (MEP); Persyn Engineering (structural); Kent Chatagnier (roofing); GSW & Associates (civil)  
**PHOTOGRAPHERS** Kent Niemann, AIA; Robert Fiertek

Built upon a barren mesa overlooking Presidio, Franco Middle School represents the essence of this West Texas border town. Citizens and administrators of Presidio ISD came together to produce the vision for a school which would preserve the town's Southwest style while utilizing local resources. "There was a lot of conversation about what an educational center needs to be," Brad Pfluger, AIA, president of Pfluger Associates Architects in Austin, said. The residents wanted to use the building for community events during nights and weekends, and for adults' continued education in technology and literacy. "The school is planned for future expansion as the community continues to grow," Pfluger added. Currently, the 68,200-square-foot structure spans across a six-acre site and serves 800 students. Segments of eight classroom pods, which are distinctly separate from communal areas, allow for classroom additions onto the

end of the building. Presidio, established in 1683, has a long history of using stucco and adobe construction. To uphold this tradition, the citizens requested that the school's appearance blend in with the desert landscape. "The overall feel of the community is very, very important to them," Pfluger said. "They wanted [the school] to look more natural in its surroundings." Collaboration between architects, contractors, and the community produced a plan that not only captured Presidio's spirit but was cost-efficient. Tilt-up concrete walls (top), which look similar to adobe architecture, decreased the expense of the building envelope. Access to structural steel and concrete reinforcing steel from Chihuahua, Mexico, along with a local labor force accustomed to working with the materials also enhanced productivity. Total construction cost about \$5 million and was complete in October 2001.

SANDRA TAYLOR

**RESOURCES** METAL DOORS AND FRAMES: TexSteel; WOOD AND PLASTIC DOORS AND FRAMES: TexSteel; PAINTS: Hanley; ACOUSTIC DOORS: Wenger; CABINETS: R&R Millwork; ROOF AND DECK INSULATION: Atlas Energy Products; MEMBRANE ROOFING: Tamko; METAL WINDOWS: Columbia Commercial; MANUFACTURED CASEWORK: Wenger



**FLOOR PLAN**  
 1 ADMINISTRATION  
 2 FOOD SERVICE  
 3 FINE ARTS  
 4 MEDIA  
 5 ATHLETICS  
 6 GENERAL LEARNING AREA



Continued from page 42

the six-member jury of two school board members, two administrators, and two representatives from the Texas Society of Architects. The rules state, "All members will not be affiliated with any of the entries." A data book, packaged along with the PowerPoint CD, was sent to the jury members a couple of weeks in advance so preliminary review and familiarization with the projects could be accomplished.

Many fine and exemplary projects were reviewed. Some illustrated their concepts directly and clearly, others were lost in the magic of the PowerPoint presentation itself. Fades, dissolves, "fly-in" text, and other belabored graphic touches in some cases hid what might otherwise be good, solid architectural thinking and planning. In this show, simpler is better. Direct response to the planning, addressing pedagogical issues, and sensible scale and rhythm, "place-making," and creative, logical architectural solutions were the valued responses. Limited discussions among the six-jury members were held.

Future competitions should encourage much more discussion and cross-pollination of ideas as to why a project is "educationally appropriate," for example. What a great way to learn from our clients and users, when we express openly and honestly the values that "innovation" or the "process of planning" can mean for an administrator or board member.

Furthermore, the categories should be realigned. To evaluate a 3,000-student high school with a 50,000-square-foot elementary school for 600 students is a mismatch. Selections in the future should consider the two or three best in each category, (i.e., the exemplary high schools, middle schools, or elementary schools) and judge them against each other in that category. With schools, scope does matter and it should be reflected in the judging.

The TASA/TASB convention is a fine vehicle to celebrate with Texas architects the best in an ever-growing field of architectural endeavor. The amount of work in Texas is monumental. It is a place for rich and exciting exploration of ideas and the first introduction to public architecture which the five million school children of Texas experience. The challenge has never been greater to encourage and foster in our youth the sense of well-being, firmness, commodity, and delight which memorable architecture can ignite.

BRYCE WEIGAND, FAIA



28662 N. Ballard Drive  
Lake Forest, IL 60045  
Phone (800) 759-6985  
FAX (847) 816-0425

[www.cpidaylighting.com](http://www.cpidaylighting.com)

CPI's unique Pentaglas panel system, enhanced for performance and appearance, provides more value for your construction dollar than any other translucent system available.



Mercy Children's Hospital  
Toledo, OH

## UNITED STATES ALUMINUM

ENTRANCES

STOREFRONTS

IMPACT GLAZING

WINDOW WALLS

CURTAIN WALLS

SLOPED GLAZING

WINDOWS



200 Singleton, Waxahachie Texas 75165 • 800.627.6440  
[www.usalum.com](http://www.usalum.com)





## Rayzor Elementary

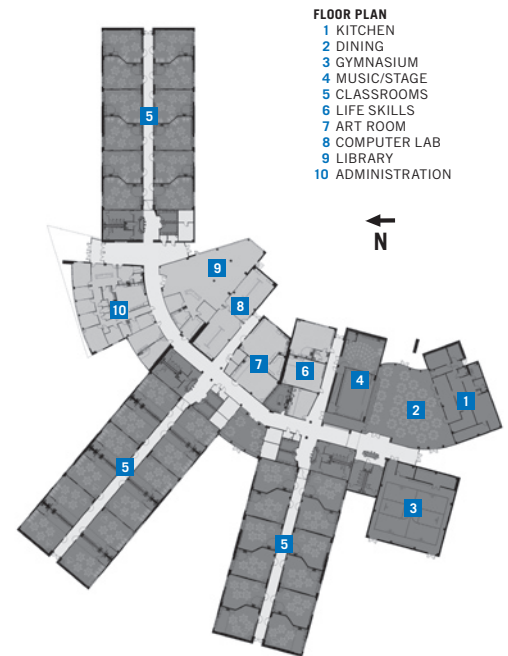
**PROJECT** E.P. Rayzor Elementary School, Denton  
**CLIENT** Denton Independent School District  
**ARCHITECT** SHW Group  
**CONTRACTOR** Charter Builders  
**CONSULTANTS** Estes, McClure & Associates (MEP); Surveyors & Engineers of North Texas (civil); Grubbs Ramsey (landscape); H.G. Rice & Company (food service)  
**PHOTOGRAPHER** Mark Trew

Located on a two-acre planned development site, Eugenia Porter Rayzor Elementary School in Denton is an innovative mixture of materials carefully chosen to harmonize the architectural style of the community. Completed in June 2002, the building's exterior features galvanized, corrugated metal paneling and stone with exposed wide-flange steel columns. Exterior brick walls of various colors break up the facade and define the core spaces of the school. "Blending the district's goal for an academic and kid-friendly atmosphere with the developer's vision for the school to aesthetically fit in with the development and community proved to be difficult," said lead designer Konrad Judd, AIA. "We had to consider the volume and materials to make the environment inspiring for children while tying it

into the context of the landscape and community." A ribbon window on the front facade and library windows makes the suspended roof appear to float. A crescent-shaped corridor creates an engaging setting for the classrooms which are divided into three separate wings characterized by different color schemes. This curved corridor also provides easy access to the core interior spaces such as the library and media center, cafeteria, and gymnasium.

JENNIFER MCCUTCHEN

**RESOURCES** CONCRETE PAVEMENT: TXI; EXTERIOR BENCHES: Landscape Forms; CONCRETE PAVEMENT: TXI; MASONRY UNITS: Acme Brick, Texas Building Products; UNIT MASONRY WALL ASSEMBLIES: Dur-O-Wall; MASONRY VENEER ASSEMBLIES: Heckman Building Products; GLAZED MASONRY UNITS: Pittsburgh Corning; METAL DECKING: Berridge; ARCHITECTURAL WOODWORK: Casework Services; WATERPROOFING AND DAMPPROOFING: Sonneborn; BUILDING INSULATION: Owens Corning; ROOF AND DECK INSULATION: Johns Manville; EXTERIOR INSULATION AND FINISH SYSTEMS: Johns Manville; VAPOR RETARDERS: Griffolyn; ROOF AND WALL PANELS: Berridge, Centria; MEMBRANE ROOFING: Hyload; METAL ROOFING: Berridge; METAL DOORS AND FRAMES: P-W Metal Product; WOOD AND PLASTIC DOORS AND FRAMES: OshKosh Architectural Door; SPECIALTY DOORS: Overhead Door Company; GLASS: Mustang Glass





# Designing for Better Sound in Schools

Understanding and implementing the new classroom acoustics standard

SPOKEN language communication is essential to most classroom learning, where as much as 60 percent of the activities involve students listening to and participating in spoken communications with a teacher and other students. The school classroom facilitates and enables students to learn essential academic, social, and cultural skills. As a communication channel for learning, the classroom should be free of acoustical barriers. These statements are included in the *Rationale for Acoustical Performance Criteria in the American National Standard for Acoustical Performance, Criteria, Design Requirements and Guidelines for Schools*, ANSI S12.60-2002.

The standard is best summarized in its Abstract. "This Standard provides acoustical performance criteria, design requirements, and design guidelines for new school classrooms and other learning spaces. The standard may be applied when practicable to the major renovation of existing classrooms. These criteria, requirements, and guidelines are keyed to the acoustical qualities needed to achieve a high degree of speech intelligibility in learning spaces. Design guidelines in informative annexes are intended to aid in conforming to the performance and design requirements, but do not guarantee conformance. Test procedures are provided in an annex when conformance to this standard is to be verified."

Why was a new standard needed? After all, architects have been designing schools for generations. What has changed that requires an acoustical standard on top of all of the other codes and regulations that govern school facility design and construction? Lightweight drywall construction has displaced traditional masonry for many interior partitions. Air conditioning is almost universal, whereas it was formerly a rarity. Urban noise, including vehicular traffic has continuously increased. Audio/visual systems with amplified audio tracks are in many classrooms. Acoustically deficient trends such as "open classrooms," lacking sound isolation between classrooms were adopted. Most importantly, however, much has been learned through research on students' physiology, hearing, learning, speech perception, and


communications. Design based on precedent, it turns out, is not so much using what works, as it is just doing things because that's how they have always been done.

The use of American National Standards is voluntary. With the exception of a few institutional owners and school districts that currently impose S12.60-2002 in their facility standards, owners and designers are not yet required by law, regulation or ordinance to use or even consider the criteria, requirements, and guidelines of the standard. Architects should consider, however, that this standard was initiated by a federal government agency and many representatives of the technical, trade, and public-interest communities. Over time, it is inevitable that

institutional owners and political jurisdictions will adopt some or all of the standard.

Architects, who design facilities for learning and are responsible for creating successful learning environments, should become familiar with the school acoustics standard, inform their clients about it, and implement it into design. Criteria and other specifications contained in the ANSI/ASA standard are consistent with long-standing recommendations for good practice in acoustical design. Failure to consider or incorporate the standard could make architects liable for poor acoustical performance of facilities, and poor academic performance of students. The new standard is more than a potential regulation; it is a long-anticipated





**AEC, Inc.**

3360 Wiley Post Road  
Suite 150  
Carrollton, Texas 75006  
Phone: 972.488.1066  
Fax: 972.488.0554  
[www.aeccorp.com](http://www.aeccorp.com)

**Architectural & Industrial Noise Control Products & Services**

Circle 175 on the reader service card



Pelton Marsh Kinsella  
Consultants in...

**Acoustics**

**Audiovisual**

**Show Control Systems**



[www.pmkconsultants.com](http://www.pmkconsultants.com)  
1420 W. Mockingbird Ln., Suite 400 • Dallas, TX 75040 • 214-688-7444



**pmk**  
CONSULTANTS  
ACOUSTICS | AUDIO | VISUAL SYSTEMS

Circle 81 on the reader service card



and valuable tool for design professionals, owners, and builders to create better learning facilities.

## History of S12.60-2002

The Access Board, a federal government entity that enforces accessibility under the Architectural Barriers Act of 1968 (ABA) and the Americans with Disabilities Act of 1990 (ADA), was created under Section 502 of the Rehabilitation Act of 1973. Officially named the United States Architectural and Transportation Barriers Compliance Board (ATBCB), the Access Board is responsible for developing accessibility guidelines and providing technical assistance to individuals and organizations. Recognizing that poor spoken communications due to inaudible or unintelligible speech for students and teachers may create selective acoustical barriers to learning, the Board published a request for information on acoustics in schools in 1998. The Acoustical Society of America (ASA) formed a working group in 1997 with representatives of eleven national groups on "eliminating acoustical barriers to learning in classrooms." The

Access Board partnered with the ASA, in association with the American National Standards Institute (ANSI), to develop a new standard. Between 1999 and 2002, this group met regularly, ultimately developing a final draft in late 2001. After review and public comment, the process was completed. The ANSI S12 Committee on Noise, which included "wide representation from the technical community (manufacturers, consumers, trade associations, general interest, and government representatives," (S12.60, Forward) approved the new standard 26 June 2002. Challenges were made by the American Refrigeration Institute (ARI), Modular Building Institute (MBI), and the School Facilities Manufacturers' Association (SFMA), but all were rejected by the Board of Standards Review (BSR), which upheld the standard and the development and approval process that was followed by the S12 committee in adopting it. The Access Board submitted extracted provisions of ANSI S12.60 to the International Code Council (ICC) for inclusion in the 2003 International Building Code (IBC), including maximum background noise levels of 35 dBA and reverberation time

of 0.6-0.7 seconds. Although the proposal was not adopted at the ICC hearing in September, "there was a strong consensus among interested parties to work with the ASA and ANSI S12 Committee on Noise" on resolving the issues related to compliance and associated costs.

## Basis for Acoustical Criteria

While it is apparent that all classroom environments are not the same, it may be less well known how much the students vary in terms of their hearing ability, language proficiency, and cognitive skills. Under ideal conditions, communication effectiveness may be limited by students' physical development, maturity, hearing, and language skills. The effects of non-ideal listening conditions can significantly degrade learning potential. Acoustical performance of classrooms is, therefore, a critical determinant of learning facility success.

The most basic requirements for good listening and speech intelligibility are (a) quiet background noise, both continuous and transient sources, and (b) short reverberation decay

# The Next Generation of School Acoustics

If your school designs are limited by purely absorptive products like acoustical ceiling tile, fabric panels and cementitious wood panels, you are not taking advantage of the latest advances in architectural acoustic design and the expanded palette of innovative products currently available to provide the next generation of school acoustics.



**Do not settle for bad acoustics.** Learn about the widest range of innovative acoustical absorptive and diffusive products in the industry, computer modeling, shape optimization and electronic architecture, by signing up for RPG's free educational seminars. **Our children deserve a well designed learning environment.**



RPG Diffusor Systems, Inc., 651-C Commerce Drive, Upper Marlboro, MD 20774, info@rpginc.com, 301-249-0044, www.rpginc.com  
Texas Representative: Specified Components, PO Box 925063, Houston, TX, 77292, gloria@sci-texas.com, 713-957-0391, www.sci-texas.com

Circle 95 on the reader service card



time, how long sound persists in a space after the source stops.

Acoustical performance criteria in ANSI S12.60 are presented for background noise levels, sound isolation, and reverberation time. The criteria are based on relevant child and adult physical speech and hearing characteristics, coupled with facility conditions that affect speech intelligibility. One such facility condition is the signal-to-noise ratio (SNR); how much louder a source is than the background noise. While adults with good hearing and speech proficiency may have fair understanding of speech when it is barely louder than the background, children may require speech to be as much as 15 dB above the background to achieve good understanding. This is because children's slow neurological maturation process, greater incidence of hearing impairment due to ear infection and common language disorders, make them more susceptible than adults to room acoustical effects on spoken language communication. Speech recognition research has shown that adults can fill in syllables and words from their own vocabulary, but children

and non-native language listeners, due to limited language proficiency, cannot "fill in the blanks" when poor speech communication occurs. Speech interference results from background noise covering up or obscuring words, intermittent or transient sound events distracting communication, and reverberation "blurring" clarity of sound.

A tutorial lecture, "Children's Need for Favorable Acoustics in Schools," was presented by Dr. Peggy Nelson, Department of Communication Disorders, University of Minnesota, at the Acoustical Society of America's (ASA) national meeting held November 2003 in Austin, Texas. In a review of the history and discussion of the contents of the S12.60 standard, Dr. Nelson presented the empirical evidence that children do not typically achieve adult performance levels of speech understanding until their late teenage years. As a result, school facilities that are adequate for adults may not be adequate or appropriate for young learners. She listed special conditions that affect children, including:

- Inefficient broadband listening strategy
- Inability to put missing pieces together

- Immature weighting of acoustic information
- Increased susceptibility to distracters
- Decreased ability to segregate signals from noise

Nelson also discussed the four most common classroom noise sources:

- Building services and utilities, such as HVAC, plumbing and electrical systems
- Exterior noise transmitted through the building envelope, such as vehicular traffic, playground noises, and aircraft
- Interior school noise transmitted into the classroom through partitions, interior doors, floors, ceilings and the ventilation system, such as voices, laughing, footsteps, and furniture movement from adjacent classrooms and hallways
- Noise generated within the classroom, such as occupants' voices and activity, audiovisual equipment, computers, and furniture movement



Integrated Communications Technology, Security  
and Acoustic Consulting



International  
Experience

Texas  
Presence

Houston Office (713) 278-8228 [www.smwinc.com](http://www.smwinc.com)

Circle 79 on the reader service card

## Enhancing Sound Quality in Music & Performance Facilities Since 1990



P.O. Box 200504 • Austin, Texas 78720-0504

Tel: 512-259-5858 or 877-522-6507

Fax: 512-259-5850 or 877-508-8583



- Sound Absorption & Control Panels
- Barrel, Pyramidal & Quadratic Sound Diffusers
- Auditorium Sound Reflector



[www.acousticalresources.com](http://www.acousticalresources.com)

[info@acousticalresources.com](mailto:info@acousticalresources.com)

Circle 57 on the reader service card



Strain and exhaustion in teachers is also a concern. Although not studied as thoroughly, the difficulty of speaking in noisy and reverberant environments, especially over time, can cause strain on teachers' vocal chords, resulting in potential weakness, incapacitation or exhaustion. These maladies can be avoided in good acoustical environments.

Contents of ANSI S12.60

“Conformance to this standard will improve the quality of education by eliminating acoustical barriers for all students and teachers,” according to the standard’s introduction.

The Standard is written in simple, lay language for the purpose of making the standard not just accessible by owners, administrators and designers, but so that it can be used as a planning and design resource. A review of the table of contents, below, shows the range of information provided.

Contents	
	Page
Foreword .....	iii
0 Introduction .....	1
1 Scope, purpose and applications .....	1
2 Narrative references .....	2
3 Definitions .....	3
4 Acoustical performance criteria and noise isolation design requirements and guidelines .....	5
Annexes	
A Rationale for acoustical performance criteria .....	10
B Design guidelines for noise control for building services, utilities, and instructional equipment .....	14
C Design guidelines for controlling reverberation in classrooms and other learning spaces .....	17
D Design guidelines for noise isolation .....	23
E “Good architectural practices” and procedures to verify conformance to this standard .....	27
F Potential conflicts between the acoustical requirements of this standard and indoor air quality (IAQ) and multiple chemical sensitivity (MCS) .....	34
G Cautionary remarks on using supplemental descriptors for evaluating noise in classrooms and other learning spaces .....	35
Tables	
1 Maximum A-weighted steady background noise levels and maximum reverberation times in unoccupied, furnished learning spaces .....	5
2 Minimum STC ratings required for single or composite wall, floor-ceiling, and roof-ceiling assemblies that separate an enclosed core learning space from an adjacent space .....	7
3 Minimum STC ratings recommended for single or composite wall, floor-ceiling and roof-ceiling assemblies separating an ancillary space from an adjacent space .....	8
C.1 Minimum surface area of acoustical treatment for different sound absorption coefficients, ceiling heights, and reverberation times .....	20
D.1 Approximate difference between the minimum STC rating required for building envelope components and the required outdoor-to-indoor noise level reduction .....	25
D.2 Correction data for estimating the STC rating of a two-element composite building assembly .....	26

Following the Introduction, discussions of the Scope, Purpose and Applications, References and Definitions are provided; not just technical terms, but general terms for learning spaces and acoustical privacy. The definitions are in simplified, understandable language, although a reference to ANSI S1.1 is provides more technical definitions.

The core of this standard is Part 4, Acoustical performance criteria, noise isolation design requirements and guidelines. Table 1 presents maximum average A-weighted steady background noise level and reverberation times for three enclosed volumes of furnished, but unoccupied learning spaces. Noise Isolation requirements are presented in Table 2 for Core Learning Spaces and in Table 3 for Ancillary Spaces. Sound Isolation requirements, in

terms of Sound Transmission Class (STC) vary, because room adjacencies sound sources and occupancies vary. Minimum STC ratings are recommended not just for partitions, but also for floor-ceiling, roof-ceiling and composite wall assemblies, because sound can enter or leave an enclosed space through all of the enclosing elements. The Impact Insulation Class (IIC) ratings are specified, but could easily be missed by a casual reader, because they are not presented

Ooops... “There’s cable access in that space but no electrical outlet for the TV/DVD...”

We can help erase mistakes — but we’d rather help avoid them.

**Tailored Total Solutions**

- Needs Assessments/Options Studies
- Educational Technology Solutions
  - ◆ Multimedia Presentation
  - ◆ Distance Education
  - ◆ Enhanced Classrooms
  - ◆ Television Distribution
  - ◆ Infrastructure Planning and Guidelines
- Voice/Data Network Cable Systems
  - ◆ VoIP
  - ◆ Wireless Network
  - ◆ Internet Television
- Theater Systems
  - ◆ Performance Lighting
  - ◆ Rigging and Curtain
- Audio Systems
- Broadcast Systems
- Video Surveillance Systems
- Acoustics and Noise Control

**WJHW**

**Wrightson, Johnson, Haddon & Williams, Inc.**  
*Planners and Designers in Educational Communications and Acoustics*  
4801 Spring Valley Road, Suite 113, Dallas, Texas 75244  
Telephone (972) 934-3700 Fax (972) 934-3720 E-mail bhaddon@wjhw.com

Circle 212 on the reader service card



in a table, as the other recommended ratings are. The Acoustical Criteria are concluded with recommendations for conformance demonstration, either by measurement test or analysis calculations, coupled with acceptable tolerances.

The Acoustical Criteria and Guidelines specify what the building design and construction should achieve in terms of background noise, sound isolation and reverberation.

The Appendix of seven annexes, however, may prove most useful for the architectural and engineering designers. This is the part of the standard that discusses in easily understood lay language how to achieve the desired performance with design guidelines, "good practices," procedures, potential conflicts with indoor air quality, and cautionary remarks regarding substitution of design criteria for conformance measures. Each annex contains a bibliography of the information sources, which can also be utilized as an additional reading resource for designers interested in learning more about particular issues, procedures or technologies.

Annex A provides a lengthy discussion of physical, physiological, and learning development issues that affect student and teacher performance and how the actual recommended rating levels were determined.

Annex B provides guidelines for building systems and instructional equipment selections, layouts, operating parameters and architect coordination of the many parties involved in designing, constructing, supplying, and operating the learning facility.

Annex C incorporates a procedure for estimating reverberation, followed by guidelines for location and mountings of surface finishes, effects of furnishings and occupants and acoustics in large classrooms and lecture rooms (much larger and more complex in shape than typical rectangular classrooms).

Annex D discusses site selection, outdoor-to-indoor noise, open-plan classrooms, and noise isolation between interior spaces. Composite STC is discussed, for wall or roof assembly with multiple elements, i.e. wall, door, window, etc. Impacts and vibrating machinery on floors above learning spaces are discussed.

Annex E briefly describes what to do and what to look for during design, construction post-construction and after commissioning. Verifying background noise levels prescribes measurement instrumentation and procedures, including locations, for steady (continuous) and unsteady (intermittent or

transient) noise sources. Methodologies are prescribed for verifying reverberation by calculation and by measurement procedures. Noise isolation measurements are described, both for airborne and structure borne (impact) noise. A standard noise report is specified for measurement results, and recommendations for modifications.

Annex F discusses issues and sources of information that might affect either the choice

to use particular materials or the selections of those materials.

Annex G compares octave band spectrum based criteria, NC, NCB and RC systems with overall A- and C-weighted level measurements.

Study and use of the guidelines in the Standard can help the designer to incorporate good acoustics and noise control into their designs, or as a tool to assist in obtaining professional

## Solving your tough acoustical problems.

For schools or anyplace you need an exceptionally tough, good-looking acoustical panel system, no other makes the grade like TECTUM.

1-888-977-9691

**TECTUM**

[www.tectum.com](http://www.tectum.com)

Circle 111 on the reader service card

## Acoustic Control At Your Fingertips™

(713) 688-7005

[www.archoustics-south.com](http://www.archoustics-south.com)

For decades, Scamp® Sound Masking Systems have provided office occupants worldwide with increased speech privacy and freedom from distracting noises.

Now, the Scamp manufacturer proudly introduces the **first** and **only** fully-digital, networked sound masking, paging and music system.

Centralized programming of individual speakers ensures the **LogiSon™ Acoustic Network** can easily be tuned to meet the unique acoustic needs of your environment. The high level of component integration renders the audio equipment required by other systems obsolete. And, as your needs change, the Network can be completely readjusted without rewiring or requiring access to the ceiling.

**LogiSon**  
ACOUSTIC NETWORK

Circle 201 on the reader service card



consultant help with appropriate scopes of work. Implementation is neither novel nor difficult, since the criteria and guidelines incorporate the aggregate experience of many research, design, manufacturing and construction professionals. Based on precedence, performance results from the standard's guidelines should be reliable and predictable.

Many approaches to noise control are possible. Absorption within enclosed spaces reduces reverberation and the build-up of noise. Other concepts can be developed. Consider this example. The allowable background noise criteria are based on the average or typical voice sound level. If the desired signal-to-noise (SNR) is +15, for example, and the voice level is 50 dBA at a given distance from the speaker, the background noise level at that location can not be greater than 35 dBA ( $50-15=35$ ). Room absorption, exterior sound isolation and building systems noise control may be employed to keep noise below 35 dBA.

Alternately, if the voice level is not loud enough relative to a given existing background noise level, it may be possible to boost the source

(voice). Microphones and loudspeakers are used to do this in large rooms and auditoria, but that concept is not necessarily practical for classrooms. Introduction of beneficial sound reflection and diffusion can provide strengthening of sounds within enclosed spaces. Dr. Peter D'Antonio states that "Research has shown that early reflections which arrive within roughly 20 ms are fused together with the direct sound by our auditory system and generate a louder and fuller sound. It is this concept of constructively utilizing reflections in a classroom, which would normally be lost in a typical acoustical ceiling tile (ACT), to improve the speech level and intelligibility to the students."

Different approaches to solve the acoustical issues that degrade our educational facilities may not even be considered, however, unless there are design parameters that require solutions. That is why the standard should be considered and implemented.

#### Implementation

As planner and designer, the architect is key to implementation. While often deferential to

the institutional client on functional requirements, architects should consider their clients' expectation of expert advice from the professionals. Even if the clients are satisfied with existing facilities and wish to functionally replicate them in new designs, it is up to the architect to point out that the new standard is based on evolving knowledge of learners' needs. To determine existing learning spaces' conformance with acoustical criteria in the standard, the architect can have representative spaces tested for reverberation, background noise and sound isolation. With those results, the nature and magnitude of acoustical corrections can be determined. Those changes can be applied as renovations to existing spaces or in design of new facilities.

It has been noted by acoustical consultant, Warren Blazier, that all of the background data for the standard is based on children. Criteria based on young students' hearing and vocabularies are probably too conservative for high school and college level facilities. His concern is that "children" is not in the title of the standard, but design professionals and their consultants

## Affordable Building Systems

### Instar Acoustical Roof & Ceiling System

- NRC Range .65 - 1.02
- STC Range 32 - 65
- Exceptional Noise Control
- Impact Resistant
- Trafficable



2750 State Hwy 160 Whitewright, TX 75491  
Phone 903-364-1198 Fax 903-364-1108  
[www.abspanels.com](http://www.abspanels.com)

Circle 59 on the reader service card

## Ecophon®

[www.ecophon-us.com](http://www.ecophon-us.com)

Ecophon manufactures acoustic ceiling systems that incorporate a unique combination of sustainability, superior sound absorption, extremely high recycled content and state-of-the-art aesthetics.

#### In Texas Contact

Maniscalco & Associates, Inc.

1912 Hollister, Houston, TX 77080

713-465-3433 / [judymaniscalco@aol.com](mailto:judymaniscalco@aol.com)

At Ecophon, our business is acoustics.

Ask us. We can help.

tell 877-258-7845

fax 215-619-2821

email [info@ecophon-us.com](mailto:info@ecophon-us.com)

Ecophon CertainTeed, Inc. 145 Keystone Dr., Montgomeryville, PA 18936

Circle 100 on the reader service card



could apply discretion in application of the specific criteria for background noise, but remain in conformance with the general intent.

Institutional facility managers should write the acoustical criteria into general facility design standards and existing facility needs assessments, preferably before selecting architects for individual projects. Architects should incorporate the acoustical criteria into programming and schematic planning documents, both for client approval and to provide design parameters for the other engineers and design consultants on the architect-engineer team. With the concurrence of the client to establish the criteria, the architect can require the A/E team designers to consider the criteria in planning, layout, material and equipment selections, and system designs. To assure design conformance, the architect can direct engineers and other consultants to show how the criteria are to be achieved, not just by vague rules of thumb, but with detailed analyses.

Additional information is available to supplement the guidelines found in the standard.

The ASA Technical Committee on Architectural Acoustics publishes the bulletin, "Classroom Acoustics — a resource for creating learning environments with desirable learning conditions," (revised May 2003) available at [asa.aip.org/classroom.html](http://asa.aip.org/classroom.html). Other journals, magazines, and textbooks on classroom acoustics and children with disabilities are at [www.access-board.gov/publications/acoustic-factsheet.htm](http://www.access-board.gov/publications/acoustic-factsheet.htm). Owners and architects can find acoustical consulting assistance through the National Council of Acoustical Consultants (NCAC) at [www.ncac.com](http://www.ncac.com).

The new standard is a valuable tool. Architects can and should use the standard to counteract designers' and builders' tendency to construct classrooms based on precedent. For we can see now, specifically, that the way it has always been done has not always worked for our schools' occupants.

JACK B. EVANS, P.E.

Jack B. Evans, PE, is a consultant in architectural acoustics and building noise control in Austin. This article includes segments that have been reprinted from ANSI S12.60-2002 *American National Standard Performance Criteria, Design Requirements, and Guidelines for Schools*. Copyright 2002 with the permission of the Acoustical Society of America. The standard is available for \$35 from the ASA at [asa.aip.org/](http://asa.aip.org/) or from ANSI at [webstore.ansi.org/ansidocstore](http://webstore.ansi.org/ansidocstore). ASA and ANSI members are eligible for discounts.

## Index to Advertisers

Page	Advertiser	Circle No.
2,13,16,21,48	Acme Building Brands	16
11, 54	Acoustical Resources	57
62	AE Financial Consultants, Inc.	63
11, 52	AEC, Inc.	175
6, 57	Affordable Building Systems	59
8	Architectural Engineers Collaborative	56
4, 56	Archoustics	201
63	Arnold and Associates	98
42	Beach Sheet Metal Co.	200
ifc	Bell Insurance Group	88
44	Berridge Manufacturing	102
1	Blackson Brick	6
bc	Blackson Lighting	66
46	Coronado Builders, Ltd.	45
50	CPI International	203
60	DBR Engineering Consultants	86
8	Denson Construction Co.	78
11	Design Arts Seminars Inc.	49
61	Domco Tarkett	64
57	Ecophon Certainteed	100
44	Estes, McClure & Assoc, Inc.	36
61	Fugro South	97
62	Graphics/DFW	32
63	H.G. Rice & Company, Inc.	65
62	JEAcoustics	8
63	JEH/Eagle Supply	23

Page	Advertiser	Circle No.
63	L.A. Fuess Partners, Inc.	31
16-17	Marvin Windows Planning Center	28
61	MCT Sheet Metal, Inc.	71
6	Miller Blueprint	13
52, 61	Pelton Marsh Kinsella	81
11	Petersen Aluminum	83
62	Purdy-McGuire, Inc.	224
8	Quantum Windows & Doors	119
60	Raba-Kistner Consultants	47
63	RedVector.com	96
53	RPG Diffuser Systems	95
6, 54	Shen, Milsom & Wilke	79
4	Smith Seckman Reid, Inc.	54
6	Sport Court of Texas	24
7, 56	Tectum, Inc.	111
16	Texas Building Products	22
ibc	Texas Masonry Council	207
15	TexaStone Quarries	62
50	United States Aluminum	99
4	Valley Block & Brick	3
61	Vintage Lumber & Hardware	70
13	Walter P. Moore	50
60	Way Consulting Engineers, Inc.	202
21, 55, 61	Wrightson, Johnson, Haddon & Williams	212
60	York Metal Fabricators	72

When contacting our advertisers, please be sure to mention that you saw their ads in *Texas Architect*.

## POWERPOINT

continued from page 21

In short, anyone involved in preparation of PP presentations should read Tufte's booklet.

As we prepared our own PP presentation while trying to heed Tufte's admonitions, we noted with interest other efforts that challenged the application's norms. Musician and artist David Byrne, formerly of the Talking Heads, is exploring PP as a new art form, using its inherent techniques and limitations as a generator of images. While the results to date are not convincing, they are nevertheless a departure from what one expects from PowerPoint. As Byrne says, "PowerPoint makes hilariously bad-looking visuals. But that's a small price to pay for ease and utility. We live in a world where convenience beats quality every time."

So, like it or not, PowerPoint is here to stay and my colleagues and I are going to have to

push ahead to "master" it (whatever that means). However, we did realize there are a few basic principles to follow, none of them new or radical: content, not format, still rules; personal style and conviction count; avoid templates; eliminate bullet points, or at least keep them few and simple; and don't read the slides aloud.

So, what about our presentation? Inspired and informed, we put together a slick PowerPoint presentation, avoiding bullets and distracting transitions, and made our presentation with conviction and passion. We didn't get the job.

More information on Tufte and his books is available at [www.edwardtufte.com](http://www.edwardtufte.com).

Robert Meckfessel, AIA, is a principal of dsqn associates.



continued from page 23

“comida,” (main meal), the two snack breaks are an extremely important part of the school day, and are carefully considered architectural experiences. For example, the snack area kitchen for the youngest children is at a lower level so that adults are at the same level as the small 4 to 7 year old children they serve.

The intermediate 3rd through 6th grade students are housed in curved two-story blocks which face each other oriented north and south, form a narrow, shaded garden courtyard, and has a focused view west to city beyond. The deep brick walls provide shading and while the brick cornice details recall traditional brick buildings in Torreón. The middle school 7th and 8th grade students are housed in three-story towers that are staggered to create solids and void in a more open manner and are joined by a connecting ramp. The forms create another narrow shaded court. High school students from grades 9-12 are housed in a long three-story block that contains classrooms, lab space, and computer rooms. Oriented to the south, this block opens to the city and mountains beyond and is the most open and transparent. The curved double roof over the block suggests an increasingly more technical curriculum for the high school students, relates to Torreón’s traditions as an industrial city, and forms covered outdoor *miradors* at the top floor which encourage socializing among the high school students. A clock tower at the end of the block presents a curved face at its urban corner, and is differentiated from the rectangular side which faces the school. Outdoor sports areas for the school feature a sunken, “speed soccer court” (which has proven to be very popular) and seating areas with innovative moveable shade canvass shading devices which can respond to varying solar orientation during the day and during the school year.

The pedagogy of the school emphasizes students learning to concentrate, the ability to think both clearly and analytically, and a well rounded education in the arts, sciences, and the humanities. In keeping with this idea, the school is tectonically differentiated. Classrooms and support functions are brick wall dominant buildings with punched openings while the circulation is expressed as a more transparent concrete frame. The thick walls of the classrooms create deeply shaded windows and also accommodate book shelves and storage cabinets. Windows at student desk level open directly into common circulation areas.

**The high school block opens south with views to the city and mountains beyond. Students and faculty frequently occupy the covered open-air “miradors” at the top floor.**



**Colegio Cervantes reinterprets the rich, neoclassical tradition of late nineteenth- and early twentieth-century brick and masonry architecture of Torreón. These structures typically feature, among other qualities, elaborate cornice details which created modulated shadows in the bright light and desert heat. This tradition evolved during the 1930s to include eclectic, Art Deco-inspired work such as the Hotel Galicia (shown here) on Torreón’s downtown plaza.**

Locally fabricated brick is utilized that reinterprets traditional brick construction in Torreón, while utilizing contemporary methods of construction modify and control the intense light in Torreón. Local brick was also selected because of the ease of the maintenance in this heavily used school and its ability to wear, and according to Méndez-Vigatá, “chip off and still maintain its integrity over time.” This is an extremely important consideration in Mexico, (and the United States for that matter), where school budgets for maintenance are extremely limited.

Unlike the United States, architects in Mexico are typically directly involved with the contracting of trades for the construction of their designs. The Colegio Cervantes is carefully crafted with hand labor and minimal heavy equipment, which besides being more cost effective in Mexico, employs many local construction craftsmen, and improves the local economy. With the cost-effective design and construction of the school, this private school is able offer moderate tuition, which in turn makes it affordable to a wide range of students, and consequently, creates a diverse educational experience.

The buildings themselves are designed for passive cooling and cross ventilation, while the high school student’s classrooms have a curved double roof which encourages air movement. There is a back up evaporative cooling system that conserves energy, humidifies the dry desert air for the children, and according to the faculty, promotes better attention among the students. No heating is provided at the school for the temperate winters in Torreón, and the school features well insulated walls and roofs, keep the students comfortable during the school year.

If the students at Colegio Cervantes are any judge of the architectural experience of the school, they are among the happiest students I have personally encountered in a K-12 school setting, on either side of the border. Their school is designed to be used, and they use it with evident skill, enthusiasm, and pride. ■

An architect practicing in Tucson, Edward R. Burian wrote and edited *Modernity and the Architecture of Mexico* published in 1997 by the University of Texas Press.



## TRENDS OF THE TRADE

• The Council of Educational Facility Planners (CEFPI) is currently offering a series of seminars, based on the U.S. Department of Energy's Design Guidelines for High Performance Schools, to increase the awareness and benefits of high performance design and technology elements. The presentations include discussions of low to no-cost energy saving solutions, lighting controls, indoor air quality, mechanical systems, reflective roofing, lamps and ballasts. As CEFPI points out, "School districts can save money and provide more effective learning environments through smart energy choices." For more information, visit [www.energysmartschools.gov](http://www.energysmartschools.gov) or [www.rebuild.org](http://www.rebuild.org).

• In the Oct. 2003 issue of a metal industry trade magazine, Will Feland, chairman of the Metal Building Manufacturers Association, announced that marketing to architects and specifiers is critical to the success of their industry. "In our industry's efforts to boost the sales of metal building systems, we must do our best to win over those most important groups of decision makers: architects and specifiers. If these two groups don't design with or specify metal building systems, metal buildings don't get built. .... Getting the attention of architects and specifiers – and educating them about the merits of metal building systems – is vital if we want to grow our business."

• The focus of a study published in *Lighting Research and Technology* was to determine the energy savings from using a high frequency (HF) electronic ballast to operate fluorescent lighting linked to a daylight lighting system. In part, the study found that not only could the installation and use of a dimming system along the perimeter of a room, combined with a photo cell to measure level of illuminance, save up to 40 percent of the energy needed to illuminate the room by using daylight, but the high initial cost of installing HF electronic ballasts can be recovered via lower electricity bills.

• A recent study has found that indoor relative humidity can influence the health and comfort of building occupants. This study, published in *Indoor Air*, found that the use of hygroscopic (i.e., those that absorb and retain moisture), wood-based building materials increased the number of people predicted to be satisfied with thermal conditions in a room, citing several conditions that may affect perceived comfort. The study also found that, contrary to prior assumptions, moisture is not directly transferred from a space to ventilation air.

• Another study, published in *Indoor Air*, compared the subjective and objective risk factors associated with Sick Building Syndrome (SBS) to determine if gender differences were related to working conditions, job characteristics and/or demographic factors. In part, the results showed that although both sexes demonstrate similar trends for factors affecting SBS, in most cases and under the same circumstances, women report more SBS symptoms than do men. Therefore, gender difference in SBS prevalence can't be explained by objective factors alone.



HVAC Design      Energy Studies  
Lighting Design      Plumbing Design  
Power Distribution      Program Management  
Technology/Security Design

Houston  
713.914.0888

[www.dbrinc.com](http://www.dbrinc.com)

San Antonio  
210.546.0200

Circle 86 on the reader service card



**YORK**  
METAL FABRICATORS, INC.  
800.255.4703



Award-winning craftsman for award-winning projects

NOMMA CSI ABC AGC

CUSTOM CRAFTED HANDRAILS SINCE 1963

Specializing In Stainless, Bronze, Brass, Aluminum  
Ornamental, Glass, Pipe, Pickets, & Custom Handrails

[WWW.YORKMETAL.COM](http://WWW.YORKMETAL.COM)

27 N.E. 26th (73105)

P.O. Box 18149

Oklahoma City, OK 73154

405.528.7495

Fax - 405.528.7426

e-mail - [info@yorkmetal.com](mailto:info@yorkmetal.com)

Circle 72 on the reader service card



**WAY CONSULTING  
ENGINEERS, INC.**  
Structural & Civil

STRUCTURAL SENSITIVITY TO  
ARCHITECTURAL EXPRESSION

Phone: (512) 343-0766

Fax: (512) 343-9103

11615 Angus Rd., Suite 104

Austin, Texas 78759

Circle 202 on the reader service card



- Asbestos Remediation
- Construction Testing & Observation
- Environmental Consulting
- Facilities Engineering
- Geotechnical Engineering
- Indoor Air Quality/Mold Investigation
- Pavement Consulting

*A Texas Company with Three Decades of Experience*

[www.rkci.com](http://www.rkci.com)

866•722•2547

Austin, TX  
Brownsville, TX

El Paso, TX  
Houston, TX  
México

McAllen, TX  
San Antonio, TX

Circle 47 on the reader service card



# pmk

CONSULTANTS

ACOUSTICS | AUDIO | VISUAL SYSTEMS



Contact:  
David Marsh @ 214-688-7444

Visit us at [www.pmkconsultants.com](http://www.pmkconsultants.com)

Circle 81 on the reader service card



Consulting and Design Services in Acoustics,  
Sound, Noise Control, Multi Media, Video,  
Broadcast and Theatrical Systems

Dallas • San Antonio

BILL HADDON  
Principal

4801 Spring Valley Rd, Ste 113-B  
Dallas Texas 75244  
972.934.3700 (voice)  
972.934.3720 (fax)  
bhaddon@wjhw.com (email)  
www.wjhw.com (internet)

WRIGHTSON, JOHNSON, HADDON & WILLIAMS, INC.

Circle 212 on the reader service card



Resilient Floor Covering  
Commercial Tile / Sheet • Anti-Slip • Anti-Static  
Anti-Fatigue • Prof. Sports • Homogeneous Linoleum

**Jeff Arnim, CSI, LEED™ 2.0 Accr.**  
**713.898.2830**

AZROCK®

EXPRESSIONS®

TARKETT®

**Stand on Excellence**

Circle 64 on the reader service card

## FUGRO SOUTH, INC.

Geotechnical Engineering, Construction Materials Engineering  
and Testing, Nondestructive Testing and Examination,  
Geophysical Studies, Pavement Consulting,  
Management and Engineering

Austin .....	(512) 977-1800
Beaumont .....	(409) 840-5551
Corpus Christi .....	(361) 882-5411
Dallas .....	(972) 484-8301
Fort Worth .....	(817) 589-2428
Houston .....	(713) 778-5533
San Antonio .....	(210) 655-9516
Waco .....	(254) 840-2252
Lake Charles, LA .....	(337) 439-1731
Phoenix, AZ .....	(480) 961-1169



Providing our services in Texas and the southwest since 1946.



Circle 97 on the reader service card

## ANTIQUE LUMBER & MORE!

Longleaf Pine, Cypress, Redwood, Walnut  
Flooring, Doors, Windows,  
Hardware, Unique Building Materials

**VINTAGE LUMBER & HARDWARE, INC.**

Contact: Cappy Lawton  
San Antonio (210) 867 9888

Circle 70 on the reader service card



**MCT Sheet Metal, Inc.**  
**Sheet Metal Roofs**

Established 1977

- Retro-Fit
- Standing Seam Roofs
- Chemical Storage Buildings

Katy Texas  
281-391-0285  
Beaumont, Texas  
409-794-3613

E-mail: [sales@mctsheetmetal.com](mailto:sales@mctsheetmetal.com) • Internet: [www.mctsheetmetal.com](http://www.mctsheetmetal.com) • Pat Coussens • Todd Coussens

Circle 71 on the reader service card



## TRENDS OF THE TRADE

• A recent position paper, published in *Human Relations*, reviewed the workplace environment from the perspective of employee aesthetic values. Reviewing literature from past studies, this article proposes that physical and social environments are interconnected and impact one another. Aesthetics of the workplace can reinforce personal meaning for workers, increasing their sense of satisfaction and control over their environment.

• The Department of Homeland Security's Federal Emergency Management Agency (FEMA) announced four seminars on hazard mitigation in building design to be held during a two-week-long institute in July 2004. The institute covers protective design for earthquakes, fires, flood, and wind. The seminars, part of the Multihazard Building Design Summer Institute (MBDSI), are designed for active college or university faculty teaching undergraduate or graduate-level architecture and engineering courses in U.S.-based institutions and were developed by staff at the Emergency Management Institute (EMI) in conjunction with experienced architects and engineers. The sessions, free of charge to qualified applicants, are conducted by EMI, located on the campus of the National Emergency Training Center, in Emmitsburg, MD. Qualified applicants are eligible for no-cost housing at the training center and are reimbursed for travel expenses. During the summer institute, two seminars are offered each week. Flood Protection Design and Wind Engineering are offered the week of July 19, 2004. Earthquake Protective Design and Fire Design are offered during the week of July 26. Additional information about the course can be obtained at <http://training.fema.gov/emiweb/MBDSI/>.

• Dodge Analytics, a unit of McGraw-Hill Construction, published a new report on contracts for future construction in the state of Texas showing that nonresidential construction is down three percent from 2002, residential construction is up eight percent, and nonbuilding construction is up three percent. Total construction is up four percent compared to 2002. Nonresidential buildings include commercial, manufacturing, educational, religious, administrative, recreational, hotel, dormitory, and other buildings. Residential buildings include one- and two-family houses and apartments. Nonbuilding construction includes streets and highways, bridges, dams and reservoirs, river and harbor developments, sewage and water supply systems, missile and space facilities, airports, utilities, and communications systems.

• Research on the relationships of school size, poverty, and student achievement has shown that small schools are better for kids – particularly kids from poorer communities – according to a report issued by the Rural School and Community Trust. And smaller schools, contrary to the conventional wisdom about economies of scale, can be cost-effective as well. Teams of nine researchers with expertise in education, architecture, and quantitative research have challenged the common belief that big schools are cheaper than small schools to build and maintain. Their conclusion: investing tax dollars in small schools makes good economic sense.




**JEACOUSTICS**  
Engineered Vibration Acoustic & Noise Solutions  
5806 Mesa Drive, Suite 380  
Austin, Texas 78731-3742  
Tel 512/371-0800  
Fax 512/371-0825  
[www.JEAoustics.com](http://www.JEAoustics.com)

*Architectural Acoustics  
Sound Isolation  
Mechanical Noise & Vibration  
Environmental Noise*

JEAcoustics is proud to have been Acoustical Consultants to ANDERSSON-WISE Architects for the St. Edwards University Trustee Hall.

Circle 8 on the reader service card



**Purdy-McGuire** **Mechanical-Electrical Engineers**

4300 Sigma  
Suite 200  
Dallas, TX 75244-4416

Tel: 972 239-5357  
Fax: 972 239-5231  
Email: [khanzliczek@purdy-mcguire.com](mailto:khanzliczek@purdy-mcguire.com)  
[www.purdy-mcguire.com](http://www.purdy-mcguire.com)

**Kip Hanzliczek, P.E.**  
President

Circle 224 on the reader service card

**NEW** **www.hafrak.com**  
*One Source - Many Solutions*

Cad Plan File, print media, print trimmer, punch, bind, contract management, mail bags, and more.

Shop online @ [www.hafrak.com](http://www.hafrak.com)  
email [info@hafrak.com](mailto:info@hafrak.com)

**graphicsdfw** 703 McKinney Ave. Suite 110 Dallas, TX 75202  
*serving the architect, engineer and designer with a wide selection of tools and materials*

Circle 32 on the reader service card

**LET US IMPROVE YOUR PROFITS!!!**

**AE Financial Consultants, Inc.**

\*CPA, 15+ Years A/E CFO, VP Admin, HR & IT.

\*Cost control & analysis, turnaround, cash flow...

\*Temp CFO? Buy/sell? **Confidential, Reliable.**

Call: **"8-PROVEN CFO"** (877-683-6236)

[aecfo@sbcglobal.net](mailto:aecfo@sbcglobal.net) [www.jackbaines.com](http://www.jackbaines.com)

Circle x on the reader service card



# Improve Your View

Seay Psychology Building  
University of Texas  
at Austin

**Legendary craftsmanship and roofing character for discerning architects:**

- Ludowici Clay Tiles
- Hilltop Slate
- North Country Black Slate

Available from the manufacturers' exclusive representative:

## JJEH/EAGLE SUPPLY, INC.

866-847-5112 940-243-7617 fax 877-886-0780

Austin Colleyville Denton Fort Worth Alliance Frisco Houston Mansfield Mesquite

Circle 23 on the reader service card

# Hg Rice

and Company, Inc.

Food Facilities Planning and Design Consultants

3300 Rock Island Road  
Irving, Texas 75060-2169  
TEL 972.790.9100  
FAX 972.790.9200  
800.745.7423  
dbosma@hgrice.com

Circle 65 on the reader service card

## 2,000+ ONLINE COURSES

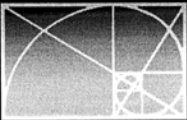
Complete your Continuing Education **ONLINE** from your home or office 24 hours a day 7 days a week!

Visit **www.RedVector.com** or Call TOLL FREE: **1-866-546-1212**

**RED VECTOR.COM**

**ONLINE EDUCATION FOR PROFESSIONALS**

Circle 96 on the reader service card



**L.A. FUESS PARTNERS**  
Structural Engineers  
Dallas, Texas

Circle 31 on the reader service card

# ARNOLD ASSOCIATES INC.

Roofing & Waterproofing Consulting Services

**MICHAEL L. COGBURN, A.I.A., C.S.I.**  
ARCHITECT/SENIOR CONSULTANT

14275 Midway Road, Suite 170, Addison, Texas 75001  
972.991.1144 Fax: 972.991.7302  
800.535.6329 Mobile: 214.906.6400  
email: mcogburn@elarnoldandassociates.com

Circle x on the reader service card

## Place your product or service in the next **TA!**

Please call 512/249-7012 for more advertising information.





# Scholastic Composition

A colorful, thoughtful design makes the best of an unloved building type.

JUST last month, Robert Browning Elementary in Houston's Heights neighborhood was decked out with white balloons and green ribbons.

Bright-eyed pre-schoolers sang in English and Spanish. Principal Olga Moya worked the crowd, beaming at board members from the Houston Independent School District, who beamed right back at her. Everyone had gathered to celebrate, of all things, the school's new temporary building.

Addressing the crowd, Michael Morton, AIA, made no secret that the unloved building type posed serious challenges. However, Morton said, he and Douglas Oliver set out to "transcend the temporary building."

Their budget was hardly transcendent.

Morton, a principal of m ARCHITECTS in Houston, and Oliver, principal of The Oliver Studio in Houston, had been hired by Avance (pronounced "a von' say"), a not-for-profit that aims to educate low-income Latino pre-schoolers and their parents. Local operations officer Feliciano Gallegos wanted Avance's Head Start building at Browning to be far better than the usual corrugated-metal shack, and he knew

from previous experience with Oliver that a professional designer could stretch his construction budget. Significant stretching would be required: Avance had \$435,000 to erect a 6,300-square-foot building on an aggressive schedule.

The new school facility demonstrates how thoughtful design can enhance a low-budget project. For the tricky triangular site, Oliver designed a boomerang-shaped building that curves around a courtyard where three tall pine trees have stood for decades. Two wood-frame, pre-fabricated modules house the parent-services wing. Another four modules comprise the classrooms. The two wings are linked by an administration space, built on site with large windows looking out to the courtyard and to the playground beyond. The building is, surprisingly, a temporary structure with an uplifting view.

At the ribbon-cutting, people admired the building's unusual exterior with large rectangles of cement-siding panels in dark red and hunter green that form bold Mondrianesque geometric constructions. The visual effect is a de-boxing of the exterior and an overall surpassing of the "trailer" qualities typically associated with modular construction. As the saying goes, "There's nothing more permanent than a temporary building," but the teachers, staff, and kids at Browning Elementary are excited about the pre-fab addition to their campus.

LISA GRAY

Lisa Gray is managing editor of *Cite: The Architecture and Design Review of Houston*.



Cladding was installed after the modular units were delivered to the site, then a general contractor built ramps, decks, and the lobby. Photos courtesy m Architects.



# Who Wants the tortilla When you can have the WHOLE enchilada?

**Masonry  
is more than  
the wrap, more than  
the outer layer.**

**Building with total  
masonry, inside and out,**

**ensures that your structures will resist mold and fire.**

**One hundred percent masonry is durable and has  
unlimited possibilities.**



**You can find an extensive Wall Cost Guide online  
at [www.texasmasonrycouncil.org](http://www.texasmasonrycouncil.org)  
as well as a directory of TMC members in your area.**



## TEXAS MASONRY COUNCIL

**Demand Quality . . . Specify TMC Members**

Circle 207 on the reader service card



Take a step on  
SolarCap,  
the amazing new  
all-weather, solar  
powered outdoor  
lighting system.

step out with glowing style!

## SolarCap light emitting tile



**Blackson  
Lighting Co.**

214-855-5051 [www.blacksonlighting.com](http://www.blacksonlighting.com)  
[info@blacksonlighting.com](mailto:info@blacksonlighting.com)

easily installs anywhere

shines all night

charges even in rain

auto on-off light sensing

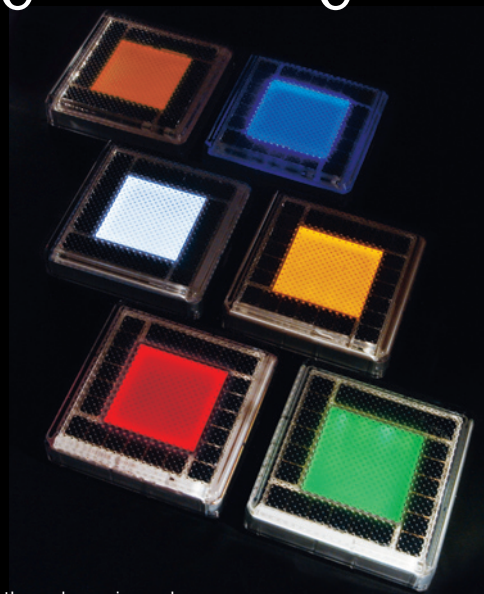
clean solar energy

self-contained design

waterproof housing

sturdy and safe

maintenance free



Add the soft, inviting  
glow of SolarCap  
to your next project:

sidewalks

stairways

walkways

accents

patios

decks

wall surfaces

Circle 66 on the reader service card